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OBJECTS, SPACES, AND ENGAGEMENT
Children's Relational Experiences in the Museum Setting

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ABSTRACT

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The focus of the research is to observe how children engage and interact with their surroundings while visiting the *Kaleidoscope of Childhoods* exhibit in The Finnish Labour Museum Werstas. As children's experiences in the museum settings are more often considered, there is some debate as to how to best accommodate them in the spaces and enhance their learning experiences. The ways in which the children's engagement and overall behavior is influenced by various agents found in the environment are interesting to view through various sociocultural theoretical lenses, which are examined herein. This is done in order to hopefully reveal ways in which their surroundings influence and mediate their engagement in the space.

The myriad ways in which children's engagement is mediated by people including adults and peers, objects, sounds, and space are viewed through Vygotsky's theory of socio-cultural learning, social referencing theory, parents' sociocultural experiences, and the vitality, holding, and interpersonal space effects. These lenses uncover ways in which we might enhance children's future experiences in museum settings from the perspectives of educators, parents, and museum staff.

Children's learning in novel spaces does not happen in a vacuum, and no one learning theory can claim to understand each child's learning in every situation. For these reasons, the children observed in this research and their behavior in the museum setting is viewed through multiple, entangled theories. When viewed this way, surroundings that affect children's learning are more easily recognized and understood. We argue that this understanding of surroundings (including human, non-human, space, time, and sound) as socio-cultural being/s will help in providing better learning opportunities and more instances of engagement for children visiting museum exhibits.

Keywords: engagement, social learning, sociocultural, museum, agency, Vygotsky, social referencing

The originality of this thesis has been checked using the Turnitin Originality Check service.

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1 INTRODUCTION

Those who have been privileged enough to have visited museums in childhood might be able to recall the interesting sights, interactions, and experiences gained during those visits. However, those experiences have not been shaped in a vacuum. Children's involvement with the objects, the ways they orchestrate play while exploring the artefacts and museum environment as well as the ways their engagement is provoked and influenced through scaffolding by peers, adults, the objects themselves, and the museum environment demonstrates the deeply social nature of human learning (Vygotsky, 1978). Observing and reflecting on children's engagement while visiting the museum exhibits can help us understand the myriad ways in which children learn through their museum experiences in the entanglements with the various social and cultural influences present in the museum. Museums are safe places to wonder and to explore beyond the familiar items exhibited in the non-familiar setting and they invite their visitors to an endless exploration and wandering. Each visitor experiences the museums in different ways (Hackett, 2014). Children's engagement with museum exhibits may be influenced directly by personal motives, or through intergenerational relations. The cultural experiences and historical contexts of children's families or their immediate surroundings, like relatives and their community can shape child's way of meaning-making. What is interesting in this study is to observe how children behave upon arriving and spending time in the Kaleidoscope of Childhoods exhibit at The Finnish Labour Museum Werstas. The way which they react to and use input from adults with whom they are visiting, or perhaps how they do not, can be interpreted through several theoretical lenses. One commonality exists through all these understandings: Children's engagement in the museum happens in cooperation with others, whether those others are parents, siblings, friends, the surroundings, or museum objects they are interacting with (Davidsson & Jakobsson (Eds.), 2012).

A museum is a place full of various objects intended to provoke thought, new understanding, and artistic, historical, or technological appreciation, among other things. Different objects contain different meanings to individual people based on their past social and cultural experiences, which elicit emotional reactions and memories. Reverence of certain objects above others is a construct of our societies, a meaning loaded to the previously familiar objects as well as the expectation of 'educational value' placed on young visitors (Boyd, 1999). These expectations give the objects and the surrounding space agency for young learners interact with them in different ways (Paris, 2002). Adults such as parents or teachers visiting museums with children also have their own interpretation of an object's value and importance and will endeavor to impress their own understanding of artefacts upon children for whose learning, they feel responsible, lending social, cultural, and historical facets to children's learning in the museum.

The importance of researching children's engagement in museum environments is to understand how they naturally behave in the spaces outside of their familiar classrooms or home settings, to understand the ways they learn while being in the museum and how their engagement is changing through the interactions with adults. As future teachers our own interest is to define those moments in order to contribute children's positive museum experiences as much as possible during the field trips as Core curriculum puts high value on learning everywhere (Finnish National Agency for Education, 2018).

Outside of our professional development motivation, it is useful for museums in general to have feedback about visitors' experiences in their exhibits, to further improve and provide interesting and engaging events to their venue in the future. According to Hackett et al. (2020) museums are more and more frequented by children as customers, creating increased interest in programming young people's museum experiences and supporting learning for youngsters (p.1). Museum curators and learning experts can benefit from real-time observations of their visitors' experiences in their spaces since they can get feedback about learning that is taking place in their exhibits. The Finnish Labour Museum Werstas aims to attract young visitors for field trips and provide learning experiences for children, however there was lack of child friendly spaces in the past. We hope that the insights we gain from observing the children in the

Kaleidoscope of Childhoods area within the museum will further openness and dedication to providing child-directed content moving forward.

Therefore, our research question is: How do social interactions with people, objects, and environment mediate children's engagement and behavior in the *Kaleidoscope of Childhoods* exhibit?

The goal of the research is to uncover the ways in which children visiting The Finnish Labour Museum Werstas engage with the objects of the exhibit, how they interact with those around them, the ways they explore the surroundings, and how they show their understandings of this experience. How do relations with the adults and the museum environment influence the way children behave upon arrival, and does it progress differently as they become more deeply involved in the experience?

2 THEORETICAL FRAMEWORK

2.1 Literature Review

To understand the various ways of children's engagement and the museum environments we sought previous knowledge about engagement, how that engagement is happening in the context of intergenerational relations and interactions, affordance museum places offer, what power the objects in museums have to initiate and mediate children's engagement as well as the ways children explore and learn in socio-cultural context. Our focus developed after the observations were carried out in the museum setting, as we began to see several deeply social behaviors. We began to explore various sociocultural theories and as the literature review progressed it became clear to us that the several theories we saw in action with very much entangled. For example, as discussed in later sections, the likelihood of scaffolding was highly influenced by the parents' sociocultural backgrounds, and social referencing could almost be seen as a form of scaffolding. These discoveries during the observation recordings certainly drove our literature review throughout the process.

2.2 Engagement

Since the research involves observation, analyzation, and interpretation of children's engagement in the museum environment through the theoretical lenses described within each vignette, it is worth understanding what the concept 'engagement' means to us and our research. As Harrison (2012) explains, the term engagement is defined in several ways through various theories like developmental theories, socio-cultural theory, socio-cognitive theory, environmental theory and so on (pp. 45-46). There are many aspects to engagement like cognitive, behavioral, and emotional engagement. While behavioral engagement is defined by the participation in formal educational and non-formal learning events, emotional engagement is defined by mental

attendance and being. Cognitive engagement is defined by the presence of inner motivation, self-regulation and interest which serve as investment in the learning process (Harris, 2010).

For example, Wertsch (1998) named the phenomenon “individual(s)-acting/operating-with-mediational-means” or “mediated action” (p. 24). Hackett et al. (2020) names the sensory and bodily engagement with museum objects as “enmeshment” which serves to describe the arrangement of children’s relationships with museum objects. This “enmeshed thinking” extends not only to children and objects, but also to the times of day and the space within and through which the experience is taking place: “Our writing about children’s relationships with objects is not just a text but also has a *texture*; an enmeshment of many different threads, folds, creases and crevices that knot, pleat and pour into our labyrinthine story of objects. Threads from a range of disciplines such as philosophy; museology and archaeology; art and crafts; anthropology; developmental psychology and early years education inform the ways we think about and choose to interpret young children’s relationships with objects in the museum” (p. 15). Every discipline has its own expectation and assumptions when it deals with children’s meaning-making processes and engagement with objects in museums. Children’s meaning-making processes and engagement can be understood in terms of essence of the objects, or colour or texture that captures the child’s interest. The ways those blend in different lights and angles or how different development theories explain child’s behaviour and engagement in different ways is intrinsic to meaning-making.

According to Wang et al. (2019) children tend to have better engagement in learning when there is positive support from social interactions. The importance of our research is supported when we observe how input and support from other people during children’s interactions with the objects and spaces might influence their overall engagement. Referring to this statement there is an assumption that by support and intervention of the adults or peers, children might be more engaged in the museum artefacts and spend more time and effort to expand their knowledge about them. By being more engaged, we mean being more involved and actively exploring or paying attention to the object or initiating play around the object with or without adults.

However, there is another assumption that children might get disengaged from the object and lose their interest and leave the area. Engagement and disengagement are opposite sides of the continuum on which engagement is characterized as meaningful, energized, and continuous action towards learning, while disengagement is seen as quitting the process (Wang et al., 2019). This might apply to the formal classroom environment where there is a designated place to learn and being there means being engaged in learning and quitting that place is understood as disengagement. Considering the open-endedness of the museum environment for exploration and unfamiliarity of the new environment makes this assumption less valid. Patchini-Ketchabaw et al. (2017) explain the engagement with materials in terms of moving with them, attending, assembling, comparing them in different environments and so on. In their book attending is explained as pausing and taking time, which can also be valid in relation to the engagement with the museum objects. When children see some objects for the first time they might show less interest towards it, however it does not mean that they are disengaged, they still attend and observe the objects, think about them, and create meanings in their minds.

For the purposes of our research, children's engagement can be understood as the attention and motivation shown towards the activity, which includes interaction of some form: social interaction between individuals, human-object interaction, or human-surroundings interaction. The way in which we understand engagement can be found in several explanations for social learning, which relate to Vygotskian theory.

2.3 Affordances of Museum Spaces

The overall surrounding environment and the affordances it offers for learning is also embedded in the sociocultural construction. The physical space, its attributes, shapes, textures, and construction have agency by affording the beings within it to experience these elements in a social way. Social interaction between children and these elements influences children's way of being and understanding in the space, from the way the materials can be used for play and can be manipulated, to the way a cavernous, concrete interior echoes and reflects voices and sounds. Although museums are not historically play-friendly sites,

they have always been a unique environment for educational activities, exploration, and critical thinking. This idea encourages modern museums to build more play-oriented spaces to increase the engagement of children within the museum environments. Educational environments can be defined as space, social interactions, and norms that are appropriate to the designated physical place as well as sounds, lights, and decorations contained therein. These all are leading children's learning experiences when they provoke curiosity and engage the child's mind (Hackett et al., 2020, pp. 179-180).

The Finnish Labour Museum Werstas "specializes in social history as well as recording, researching, and exhibiting the history of work and workers." The museum's belief that access to the exhibits should remain free means it is the largest free museum in Finland. *Kaleidoscope of Childhoods* is an exhibit which explores the lives and childhoods of those growing up during and immediately following the 'conclusion' of the Cold War. The deeply socio-cultural setting of the exhibit is inspired alongside the Re-collect/Re-connect Project, which:

[D]raws on collective biography, as well as artistic representations of childhood memories through drama, exhibitions, film, animation and visual arts. It builds an archive of memories that continually recreates itself, inciting experimentation, responding to continuously changing experiences of the communities, and fostering multiple, even panoramic viewpoints about diverse identities, cultures, and histories as experienced during and after the Cold War. During the process of collaboratively (re)collecting and 'working through' memories, participants and the public actively reconcile past and present with the tensions built up over decades. (www.coldwarchildhoods.org)

The project and museum exhibit place value on memory and lived experiences as means to find commonalities and equalities between peoples. Childhood holds meaning for all of us and may be the setting for cherished memories. Many visitors of the Kaleidoscope of Childhoods are individuals who can relate first-hand to the experiences related in the memory archive, and which are represented in the exhibit. The interplay between the children visiting with their parents who may have experienced these Cold War realities themselves, parents' expectations of their children's understanding of such topics, and their own idealized memories, and the influence it has on children's learning are interesting to speculate.

The design of the exhibit features areas for adults as well as for children. These areas have been built in a way that creates a space where children can explore and engage with the areas and objects independently, while still facilitating social interaction with adults and peers. Featuring objects such as toys, furniture, imagery, media, tactile, music, and sound elements, the exhibit offers visitors of any age to reflect on the experiences of their own childhood, that of their peers from socialist and post-socialist spaces, or that of their parents or grandparents. New connections between past and present are drawn within the context of memory and lived experience. Each of them being echoed through the social and cultural understanding of the person exploring the exhibit to create a true kaleidoscope of childhoods. This museum setting is appropriate since it provides the space, resources, and expertise to create opportunities for families to play together as well as to support children's individual learning through play (Callanan et al., 2020), as it's explicit focus is on the social nature of history and culture.

2.4 Objects with Agency

Historically we see high cultural, educational, and artistic value placed on museum artefacts. They play a large role in the conservationist nature of museums historically and globally. However, in most museum settings, the artefacts have been removed from their original context, which risks visitors not being able to appreciate the artefact's meaning (Davidsson & Jakobsson, 2012). Exhibition artefacts possess strong agency themselves in provoking interaction and manipulation, inviting children to touch them, assemble, or arrange, if possible, as well as inviting discussion or other kinds of interactions around them (Hackett et al., 2020). New discoveries and exposure to unique and priceless artefacts can have a profound impact on children's life and learning, but not always in the way that was perhaps intended by museum curators and other adults who have acted to bring this experience to the child.

The objects have the power of attraction that captures young children's attention and engages them to think, to discuss, to express, and to learn the unknown (Hackett, 2020). There are some objects children recognize and label and some that are unfamiliar and interesting to explore, after which children may apply their

own meaning and importance. Interventions in such forms as scaffolding by adults or peers can create motivation and interest for further exploration. Hackett et al. (2020) describe children's entanglement with museum objects as a type of interaction or engagement, moving them around and further exploring the objects is a type of children's engagement, as their thinking process shows itself in bodily expressions. Here, the term entanglement might also define engagement. In their engagement with objects and environment, children can express the understandings they have gained through previous sociocultural interactions and interpretations of the daily experiences they have.

The importance of objects in museums can be seen not as some static meaning the object represents, but in a way that "accounts for the active, distributed meaning-making people do in museums" (Paris (Ed.), 2002, p. 20). Vygotsky (1978), and later Wertsch (1991), referred to these processes as "mediation through artefacts", where the agency and importance of the role of artefacts is so undeniable that the relationship between human and object should not be broken down into a smaller unit. In other words, this interplay between "human and other" is the basic building block of learning, and not the individual human. While Rogoff (1990) use a more ethnocentric term, "human mediation", to describe the same phenomenon, the core meaning remains the same: the interaction and cooperation between human and something else. Another proponent of artefacts as agentic entities is Cole (1998), who defines an artefact as:

[A]n aspect of the material world which has been modified over the history of its incorporation into goal-directed human action. By virtue of changes wrought in the process of their creation and use, artefacts are simultaneously ideal (conceptual) and material. (p.117)

Again, the interdependent relationship between the object and the human is illustrated as taking a place of importance in the creation and understanding of those objects.

2.5 Children as Learners in Museums from a Sociocultural Lens

Sociocultural theory describes children as anthropologists exploring the world by learning from the community around them. They observe and explore what others

are doing to participate in the daily life of their community (Gaskins & Paradise, 2010; Legare & Harris, 2016, as cited in Callanan et al., 2020). Vygotskian theory emphasizes the need for a social environment in which human beings can learn, and it is not a coincidence that children cognitively mature with the other people around them' (Vygotsky 1978, p.88 as cited in Merker & Howe, 2012). Hence sociocultural theory advocates the idea of children's developing casual thinking in groups with other people. This group may involve both adult-child dyads as well as peers. Callanan et al. (2020) suggest seeking children's development and learning in the active social interactions and engagement in social practices rather than focusing on individual learning processes (p.10).

According to Vygostky (1962,1976), another main element and a stepping-stone in children's intellectual development is language. Language is both a cultural and psychological tool for children's development. As sharing the obtained information with others and gaining more insights from the perspective of others refers to a cultural aspect of the language. Besides, language serves as a mental process for individual cognitive development (as cited in Merker & Howe, 2012). Therefore, a more communicatively fluent child gets more information through language acquisition than they could obtain on their own. Museum spaces provoke usage of language in many forms, such a texts and also spoken interactions. This entry to the world of languages initiates communication and social interaction with the people who children visit the museums with and get more knowledge about the world around them.

Callanan et al. (2020) takes the above-mentioned statements and interprets engagement and learning in the museum environment as exploring and explaining.

"Children can learn from solitary interaction with the world and from self-explanation and reflection, but they also learn through collaborative interaction with others—by watching others' actions, by communicating their ideas, by co-constructing explanations, and by participating in joint problem solving with other people" (Callanan et al., 2020, p. 10).

As it is explained in the chapter above, museums offer a big range of affordances for children's free exploration. However, museums can also offer both structured and unstructured environments to describe the prospective of families' daily interactions. These unstructured environments create good

opportunities for understanding the learning process outside of formal educational institutes or the very familiar home environment. Researching social learning in the museum environment allows us to dive into the details of learning which are happening through individual exploration, as well as social interactions with the people with whom the children happen to visit the museum (Callanan et al., 2020, p. 11).

Exploration in the museum environment can be connected to the children's strong agency of doing things by their free will. Exploration feeds the child's interest in learning new information autonomously. For example, in the formal classroom setting the child who gets involved in the learning process independently without force manages to process the information better than when they are told what to do or not to do directly (Callanan, 2020).

As play is described to be the highest mental state of a child's learning and a child's strongest agency appears when they are engaged in the activity totally, we can understand exploration as a form of play initiated in the museum space. Children's engagement in the museum environment like physical engagement (running, jumping, showing), emotional engagement, as well as the human and non-human interactions they initiate during play in the museum environment is an essential part of the exploration. During free exploration children tend to make meaning of the things and develop thinking. In other words, learning in the museum environment happens through "collaborative and playful interaction" (Sobel et al., 2021). However, not all children explore in the same way. If we understand exploration as seeking information through experiences on one's own or with others, this process may vary depending on the social structures, values and meaning of childhood programmed in children. Social-cultural theory highlights the essence of gender, race, and ethnicity in children's play and the way children interact and engage with their surroundings reflects the cultural expectations embedded in them (Rogoff 1998; Vygotsky, 1978, cited in Harrison, 2012). From here we can assume that children's way of exploration is shaped with the culturally bound stigmas, beliefs, and values.

When exploration is seen as a process of children's independent way of seeking knowledge, explanation is seen as a process to fill a gap in knowledge which they could not find on their own. Museums are places to offer interaction

between children and adults. Social interactions can be considered main elements of the play in museum (Dooley & Welch, 2013). As to Sobel et al. (2021), there are three types of the social interactions between adults and children: child directed, parent directed or jointly directed.

Child-directed interaction appears mostly in physical engagement with the object, showing and asking, touching, running, crawling and so on, whereas adult-led interaction appears mostly in the desire to teach and explain. Adult-led interaction also has four categories: game-playing, questioning, storytelling, and technical interaction, which openly show the “teaching” motive behind those. Jointly directed interactions are more efficient as both the adult and the child can take turns being an expert on the topic and share more of their own insights and experiences of the museum.

To summarise, one can say engagement with museum objects which includes adults happen through discussing by themselves or with others, touching, looking at, and manipulating the objects, thinking about the objects, etc. Physical interactions such as touching, lifting, and manipulating, are indicators of children’s free exploration and/or learning initiated by their own will. Verbal interaction happens as a result of explanation and back and forth communication between children and others. Exploration, as in explanation, is also a social process, and the way parents contribute to the learning process is also shaped by the cultural and social experiences embedded in them. Other individuals involved in children’s exploration and experiences also shape their learning through scaffolding, which is explained by Vygotsky as a way a more experienced and knowledgeable person facilitates the learning process, helping the child close the zone of proximal development (Vygotsky, 1978). He believed the zone of proximal development, or the ZPD, describes the gap in expertise between the ‘inexperienced child’ and the more ‘knowledgeable’ other party (1978).

3 METHODOLOGY

3.1 Data Collection

The research is implemented through non-structured, video and audio recorded observations of children engaging with The Finnish Labour Museum Werstas' *Kaleidoscope of Childhoods* exhibit. Engagements were recorded in the whole area of the exhibit, but the main attention was directed to the child-friendly areas. As explained in theory section, by engagement we mean the children's attention and motivation towards the play and exploration events that occurred in the exhibition area, whether with the participation of another play counterpart or by the individual child. Observation is a popular tool used for drawing connections between the children's actions and behavior and children's understandings, both for researchers and for teachers to obtain information about their learning experiences, interests, their positions in play, the reasons hiding behind the behaviors in the game, and so on. Play is a complex phenomenon holding multilayered emotions, behaviors, social relations, and so on. By applying observation as a tool, we give it scientific purpose (Kurt, 2019). While playing, children show escalated motivation of being cognitively, emotionally, socially, and physically engaged. Observations of children's play experiences is the medium through which we will conduct this small-scale research project (Hughes, 2013; Schaefer and Drewes, 2014, cited in Hackett et al., 2020).

The play events we observe are documented as separate family groups, according to the cues children created during the framing of each play event and every detail of the interaction is observed to create a more holistic idea about the engagement of the children. By cues we mean visual fixation, vocalization, discussions, or physical interaction around the museum objects. For example, when children stopped at some object and looked at it or took it into their hands, gave the objects sounds by adding them into their play worlds, or shaking the objects to see what noise they made, showing the objects to the people around

them or pointing at them, physically manipulating them to move around or just having the desire that the object be around them while they are being physically active, and in general spending time in some area were the main cues to understand that the child is playing with the museum. Each case is defined as one visiting unit which may consist of any constellation of parents, children, friends, siblings, etc. who arrive at the museum as a group. The visitors are all known to one or both researchers and were invited to attend the museum exhibition to be filmed and observed interacting with their children.

The visiting units were present in the museum from anywhere between 1-3 hours, of which short recordings were made to represent the children's engagements with the exhibit upon arrival and at various points throughout the visit as the situation changed as the participants presumably became more comfortable with the circumstances of being observed and upon familiarity with the exhibit rules. The recordings were all made within a two-month span shortly after the opening of the exhibit, located in Tampere, Finland. Each case is recorded by one of the researchers with the other researcher simply observing. Five cases were recorded for the purposes of this research; however, one case was ultimately excluded due to an excess of obstruction in the recording and to maintain balance of the work between the two researchers as well. Each researcher transcribed two of the cases including aural and visual markers of the footage, with periodic time stamps.

3.2 Data Analysis

Data analysis is an active and changing process including personal justifications and interpretations (Mukherji & Albon, 2018). The collected data via video recordings was transcribed in the form of vignettes and include indicators of speaking, facial expression, posture, and gaze. Vignettes are a less structured tool for observation formed, in our case, upon the audio-video recordings taken during the visits. It means that notes are not taken during the observation but later, based on what the researcher observes when watching the videos back. This kind of observation might include the observers' own interpretation (Kurt, 2019), especially since some actions might be taking place, unseen, outside of

the camera frame, or the microphone might not always pick up softly spoken words or quiet sounds that might have impacted the subjects' behavior.

When analyzing the transcriptions and footage we try to notice any commonalities or patterns that were occurring across cases, to explore possible theoretical explanations for what we are seeing. We label these "claims" and think of them as phenomena, which when explored, can be viewed through various theories as socio-cultural theory, social-referencing, vitality and supported by vignettes, which show proof of the observed phenomena occurring in all the cases.

Since the data is collected through observations of children in the museum exhibit, we are viewing their behavior mostly through several socially defined phenomena, which are explainable from a sociocultural theoretical perspective. Interpersonal, child-object, and child-surrounding interactions are observable and allow for interpretation and are the focus of our observation. Non-socially founded, internal, or personal learning is not observable for us, as it is an individual process within the child. For this reason, our findings may be biased toward socio-culturally leaning theories. We understand that other explanations for learning may be at play at the same time but will ultimately be beyond the scope of this research.

3.3 Data Management

Tampere University requires a data management plan for every research independent upon the scale of the research or whether the data will be open or closed. It is a document describing the sequence of actions related to ethical considerations, collection, and storage of the data and further status of the data after the research is completed (Tampere University Library, 2021).

The data was collected from four families with overall six children participants and five adults visiting The Finnish Labour Museum Werstas in Tampere, Finland in form of video recordings with the goal of applying analysis of what we observed to write our bachelor's thesis. The videos were taken on our personal phones, and we agreed not to share them in any online cloud to avoid the unknown distribution of the content. The copies of the videos are stored in

our computers in a folder called "Observations for Thesis" and we have shared the videos with each other via copying the data to a flashcard. All the data will be destroyed upon the completion of the research. The use of the data excludes any use of the participants' real names, or other personal information. The data pertaining to each participant is available to them upon request.

3.4 Ethical Considerations

The families to be observed have been invited personally by the researchers to participate in the study. They have been informed about the methods and scope of the research and have given both their verbal agreement and written consent via digitally signing an online consent form which is reached by private hyperlink. After obtaining parental consent we also explained to the children that we would like to make a movie of how children play in the museum. We asked the children if that would be alright for them. One child initially said they didn't want to be in the movie, but with clearer explanation that no one else would see the movie and that we just want to learn about how to make the museum fun for children to learn in, that child changed their mind and agreed to participate in the research. During the observation stage of the research the researchers remained sensitive to children showing indications that they did not consent or that they withdrew their previously given consent. All parties could choose to end their participation in the study at any time.

When it comes to the methodology of the study, there is a high risk that we, as novice researchers, lack practiced observation skills which might make it difficult to transcribe the situation without preconceptions, especially when the subject for the observation are "children" about which we have certain socially and historically constructed notions. Thus, it is explicitly crucial to make a proper plan of what we are observing and what kind of data we are collecting. The aim of transcription of the videos should focus on the description of the situation without assigning any unobserved motivations or including suppositions, but to describe only which can be observed. In other words, we will need to work hard to only include description of what the observable behaviours are, and not focus on trying to describe what the child is thinking or feeling at that moment, since

those details are not observable. We can later interpret facial expression or body language to infer the child's mood, but we should try our best not to make assumptions that are not directly linked to observed phenomenon. The most difficult part of any observation is to describe the situation in an objective manner without any subjective interpretation (Nippert-Eng, 2015). Therefore, we will rely on video recordings for transcription, which can be referred to and compared between the two researchers. The two researchers can randomly audit each other's transcriptions, comparing to the video footage, checking for bias and assumption.

4 CHILDREN'S ENGAGEMENT IN THE KALEIDOSCOPE OF CHILDHOODS EXHIBIT

4.1 Social Referencing: Orientation to the Environment

Many aspects of our environment are culturally or temporally dependent, for example in the museum when exploring novel objects and phenomena, and humans' value of those phenomena are formed socially (Clément & Dukes, 2013 & 2017). Young children are bombarded by external stimuli constantly as they gather new knowledges and experiences and will need to find a way to prioritize the objects of their attention. From a social learning perspective, it stands to reason that the object to which other members of the community direct their attention should be prioritized by the learner as well, as that object is most likely connected somehow with the community values and goals. Manstead and Fischer (2001) developed the concept of 'social appraisal' in response to their contemporaries putting "too much focus on the individual 'intrinsic appraisal' and not enough on the 'social' aspects of affect in appraisal theory. They stated that 'the behaviors, thoughts or feelings of one or more other persons are often appraised in addition to the appraisal of the event per se'" (Clément & Dukes, 2013). How can a small child know how to react to an unfamiliar object, person, or sensation without consulting the reactions of the other beings in the surroundings, i.e. a trusted parent? According to Clément & Dukes (2013), "children often have to observe their caregivers' affective reaction to learn the value of an object, a person, or event—in other words, to learn how to feel about them".

Consider a child falling over or bumping their head in the playground only to look over at the parent, seeming to ask, 'Am I hurt?'. Parents who have learned to stay calm in those situations know that their child's reaction is often less likely to be

as violent as the child's whose parent immediately shouts and starts running toward their child (who has most likely started panicking and crying upon assessing their parent's worried reaction). This example demonstrates the definition of social referencing we will use in our interpretation of our museum observations. That is: "social referencing as the use of one's perception of someone else's interpretations of a situation to form one's own understanding of that situation" (Clément & Dukes, 2013, p. 1). In other sources, this same phenomenon is sometimes called "social appraisal" as well, so our cited material may use these terms interchangeably.

While this serves as our primary understanding of the term, it is problematic to our research since the process described is intrinsic to the learner, and we are not able to concretely observe that in the children visiting the museum exhibit. Therefore, there is another definition we will use, which expounds the extrinsic aspect of the learning process we *can* observe: behavior. That behavioral definition describes social referencing as "a behavior chain in which the presence of an ambiguous object or event signals the gaze shift of an infant toward another person, typically the mother, whose facial, vocal, and gestural expressions may then serve as discriminative stimuli for a subsequent approach response" (Pelaez et al., 2012, p.23). By noting the moments when this behavior is occurring, we can draw the connection to the children's meaning-making, engagement, and learning processes which are occurring via social referencing.

When studying children's learning in the museum environment we observed the interactions between adult and child dyads. In the same way infants look at their parents in unknown situations to assess their reactions, we noticed these patterns happening with the children first entering the museum exhibit. Almost all child participants were either closely walking next to the parent or holding hands or looking at them in ambiguous situations. Social referencing theory explains this as children's information seeking and explanation for the novel situations they were experiencing. (Stenberg& Hagekull,2007)

Indeed, in many instances, parents' *interest* in the exhibit objects is what prompted the children to pay notice to them at all, which influenced our understanding also of the ways parents' sociocultural experiences can impact children's engagement (discussed in a later section). This aspect of interest is also explained by Clément & Dukes:

“Someone else’s expression of interest, which seems to be detectable from a very early age, is extremely useful in gauging what is worthy of attention among stimuli that are not inherently interesting.” (2013)

Since we did not give very thorough explanations to our visitors about the museum exhibit and the rules on what can be touched and what not in the beginning of the recording, we were part of social referencing at times as well. Children tended to turn their head towards the camera frequently before touching a new item and checked for confirmation from us. The moments we were talking to their parents and showing what direction they can go or having small chats during the observations led the children to interpret that we were a knowledgeable authority regarding the exhibit, and that we are people from whom they needed to seek information.

Most, if not all, of the children proceeded through a typical series of habits upon arrival to the exhibit and getting to know their surroundings. The area was a novel place for all the children observed, but the constellation of unfamiliar and known adults and peers present in the situation varied, and the children behaved and reacted differently to the novel stimuli based on their appraisal of the interest and reactions of the people who accompanied them. The following is a comparison of this progression made by a four-year-old, who we will call Claire, visiting the museum with her mother, and another young girl we will call Grace, also visiting with her mother.

4.1.1 Arrival: Entering the Exhibit Area

Claire: Mother and child enter the exhibit holding hands. Child walks very close to mother and mother is speaking in a quiet tone. Child looks over her shoulder and sees the researcher. Child takes mother’s hand with both of her hands before turning away from the researcher, toward the exhibit. (Mother and Daughter 1, Recording 1, 0:00)

Many children, including the four-year-old Claire, start out entering the exhibit staying close to the parent. The child does not have any reference point yet for what to think or feel about this novel experience, so she clings close to her mother after noticing the unfamiliar researcher following them closely.

Claire: Mother addresses researcher, sharing her first impression of the exhibit, complimenting it. Child looks at researcher as mother speaks. The child’s face and posture are relaxed. Mother points out a picture on the wall

and bends down to speak quietly to the child. Child glances at the picture without verbal response. (Mother and Daughter 1, Recording 1, 0:30)

The researcher is unfamiliar to Claire, so the way in which her mother interacts with her is important for the child, in order to gauge what her own feelings toward the researcher should be. As her mother speaks with the researchers, Claire assesses their manner, and, seeing that her mother is calm and open with the researcher, the child becomes more relaxed.

In comparison, the much younger Grace (only two years old) behaves much more timidly upon arrival.

Grace: Mother and a child are entering the exhibition. Child is following her mother. The first thing they stop at is the glass showcase with dolls. Mother makes sound of excitement which attracts the child. The child hesitantly looks at the direction mother is pointing and then goes to mother's lap; her face looks worried. After mother calms her down she continues pointing herself towards the dolls from mother's lap, then she stands up when the strangers approach the same showcase and drags her mother towards other parts of the exhibition. (Mother and Daughter 2, Recording 1, 0:00)

Despite her mother's attempts to put Grace's attention on the exhibit, the child's focus is totally on Mom, and Grace seeks closeness to her for comfort and confirmation of safety in this unfamiliar place full of unfamiliar objects and people. She pulls her mom away from the dolls showcase toward an area where there are no other people. She is not ready to play confidently in the presence of strangers, despite the interest she showed earlier in approaching the dolls and the way her mom is directing the child's attention to them.

4.1.2 Exploration: Getting Comfortable

Claire: The child notices the plastic teddy bear object mounted in a transparent case on the wall at her eye-level. Child points out the bear to her mother who looks at it, and the description. Mother turns to researcher to comment jokingly that she thought the bear looked familiar and then read the sign that it's from East Germany (as she is). Child watches this exchange between her mother and the researcher. The child gives a slight smile upon hearing the researcher laugh at her mother's comment. She has released her mother's hand and is holding her own hands in front of her body. The pair step to the next object, a grouping of dolls. The mother offers her hand, but the child does not take it. Her gaze and body are directed towards the case containing the dolls. The mother crouches down, pointing out some detail to the child. (Mother and Daughter 1, Recording 1, 0:30-2:00)

Now that Claire is feeling more relaxed in the presence of the researcher, she starts to turn her attention to the objects in the exhibit and takes initiative to point out something to her mother. She observes Mom's jovial reaction to the bear as well as the humorous exchange between her and the researcher, further adding to her feeling of security. She feels secure enough to let go of mom's hand and doesn't feel the need to take hold of it again when offered. The child's body and interest are now orientated away from her mother and toward the objects in the exhibit.

Claire: [Regarding forest themed play area] Mother points to the children's entrance and speaks to the child, who peeks inside briefly, smiles, and sits down to remove her shoes. She speaks to mother while doing so. She gets her shoes off independently and hops through the entrance opening. She is sitting just inside turning her head to look all around the space. She pokes her hand back out the hole and smiles at mom, and then at the researcher, who laughs. The child smiles bigger and looks at mom. Child asks/tells mom to come. (Mother and Daughter 1, Recording 1, 5:50)

Even though the forest play area is a novel situation and space for Claire, she is able to continue her feeling of security as she is being encouraged to explore the surroundings by her mother. She enters the play area independently, and happily, and is encouraged by the smiles and laughter of her mother and the researcher, who has now become a 'safe' person for Claire. Only after taking off her shoes and entering the play area independently, does she turn around and invite Mom to come in too, again taking the initiative in how she would like to play and engage with her surroundings.

In a similar fashion, Grace has also started to become visibly more comfortable. After bringing her mom over to the space themed play area she glances towards the voices of other people, but upon assessing her mother's lack of reaction, she returns to the truck and space shuttle toys she is exploring and experimenting with. She even glances at the researcher who is recording her and gives a slight, nervous smile after noticing her mother's ease of address with her.

Grace: The child continues playing in the same space designed area, she has a plane in her hand and she adjusts herself in her spot to be closer to the truck toy, she touches the toy with fingers and opens and shuts the door, on the other hand she has a plane and flies it in an upright direction, mother shows with hands to fly it in flat position. She does the movement, but at the same time she listens to the voices and looks in the other direction in her front (There is a camera and the researcher recording) and looks to the sides

and then looks back at mother and gives her a smile (Mother and Daughter 2, Recording 2, 0:00)

Although there are a lot of stimuli coming from all directions, Grace is comfortable in her knowledge that her mom is comfortably sitting next to her and has not reacted to any of those stimuli in a concerned way. She feels comfortable continuing her exploration of the toys.

4.1.3 Experimentation: Testing the Boundaries

During the time spent by the mother and daughter in the forest play area, Claire grows more and more confident. She jumps on the cushion 'rocks', spins the top of the mushroom, swings the stuffed animals around, dances and sings, all while her mother looks on. She feels completely comfortable and confident, as evidenced by her outgoing behavior, and lack of shyness with the camera and the researcher. At this point, she decided to take her new relationship with the researcher further, and starts to play hide-and-seek, from within the safe zone that the forest play area has become.

Claire: [Still inside the forest play area] The child walks over to the corner of the area and crouches down, as if hiding from the researcher, who bends down and finds the child peeking at her through the opening. The researcher whispers "Kukkuu," and starts playing peek-a-boo with the child while filming. The child is ducking back behind the wall waiting for the researcher to play. The child is smiling. Researcher comes over to the higher opening "window" in the wall and pokes the camera through. The child is smiling and grabs the stuffed animal, blocking the window with it. The researcher removes the camera, and the child turns her attention again to the stone on the ground, balancing on it and hopping onto and off of it. (3:48) The child glances to the researcher who can see her through the window. The researcher waves and the child waves back, smiling. After running to the mushroom and stopping to pat her tummy for Mom, the child resumes the peek-a-boo game with the researcher, who laughs. The child is hidden from the researcher in the corner, unseen for several seconds. The researcher pokes the camera in through the adult sized door and aims it to the corner. The child is unseen by the camera. Then the child pokes her head into view of the camera with a huge smile. The researcher laughs. The researcher acknowledges aloud that she is maybe not supposed to be playing with her subject. The child hides in the corner again momentarily before poking out of the small entrance, smiling at the researcher, who says "Ahaaa!". (Mother and Daughter 1, Recording 2, 3:30)

As Claire becomes ever more comfortable in her new surroundings, she begins to show playful behavior demonstrating her comfort and confidence in her

surroundings and seeks out the reactions of the researcher by playing with her. She is seeking out experiences in this interaction with the researcher. In the following vignette we see her perform novel exploratory behavior with her mother also, and also feeling confident skipping and sneaking all around the exhibit area, which she had not yet learned the safety of until her interactions and play with the adults in her surroundings confirmed it was fun and 'allowed' to do so, while mom sits on the comfortable chairs near the forest play area. Sociocultural theory suggests that by interacting with the objects and people in her surroundings and learning from the actions and reactions of others, Claire was able to gain confidence and further explore her own play and engagement in the exhibit.

Claire: [The cartoon screen next to the forest play entrance, her mother is offering her the speaker device] Child listens for a moment before leaning away from the receiver and making a waving/blocking gesture with both hands toward the device, rejecting it. Child leaves mom listening and starts skipping around the exhibit, smiling. She skips back over toward the cartoon screen and as she approaches it, changes to walking, gazes toward the screen. She stops in front of it and reaches for the speaker device* but does not pick it up. Her mom has taken a seat nearby. The child is fixated on the screen and her hand is reached out toward the speaker, frozen while she watches for several seconds. Her arm drops to her side again while she watches the screen. 1:12 She turns away from the screen, smiling, and glances at the researcher before tiptoeing over to where mom is sitting and says "Kukkuu" to Mom. Mom makes a startled sound and the child dances away on tiptoes while smiling at the researcher and says "Heehee!". (Mother and Daughter 1, Recording 3, 0:38-1:30)

By this point Claire and the researcher have created a comradery to the point that the child plays funny tricks and looks to the researcher to see her reaction. She takes little guidance or influence from what her mother is doing and follows her own initiative, looking to the adults in the situation (and more increasingly to the researcher specifically) to note their reactions to her behavior. Claire's attention flits from her ongoing play with her new researcher friend back to the screen many times, pausing in front of it to watch the cartoons being shown. The object of the screen and the content it provides show strong agency in attracting Claire, whose engagement is paused, diverted, and redirected by the screen and the researcher in turn. These entities mediate her experience in the exhibit also by creating repetition of joyful and fun play which keeps Claire engaged in the exhibit for many minutes.

Grace, on the other hand, shows her comfort and engagement with her surroundings in a different way: by displaying her confidence playing independently while mom leaves to look at some other parts of the exhibit, and not coming when her mother calls to her from the other side of the room.

Grace: She brings the truck towards her knee, opens the door few times, looks at her mother, the mother leaves the spot and walks away from the child. While playing, the child looks for her mother, mother comes back to her eyesight, and she bends her head down and continues playing with the truck. She drives the truck and then the plane on the different angles of the surface. Mother is not standing by her. Child keeps looking around. There are some chatter sounds, and jingling, child lifts her head listens and moves her body forwards and backwards and goes back to playing with the truck, she brings it to the ravine and then takes it back to her knee level. Then the mother starts calling her name few times, child puts the toy next to her, responds her mother, but does not stand up from her spot. She wiggles her right leg, looks around and goes back playing with the truck and she points to the truck. Mother says something in an appealing voice. Mother stands in front of the other exhibit area, but in eyesight of the child, child is looking at her and pointing towards mother's direction. The child has the plane in her hand and is playing with the truck with the other. Mother is saying something to her in an excited voice. Child responds something in their language and keeps playing with the truck. She drives the truck from one end to another end. Mother walks towards her and shows something in the other side of the exhibition and calls her name, child leaves the truck and stands up and goes to her mother, holds her hands and they walk to the other part of the exhibition. (Mother and Daughter 2, Recording 2, 2:00)

Grace repeatedly ignores her mom's invitations to join her in checking out the other parts of the exhibit. She has chosen what she wants to do and how she wants to play and is reluctant to let her game be interrupted. She has become independent in being able to interpret her surroundings and place her attention on what she sees as a priority. Once catching up with her mom, the pair continue exploring together and start joking together, laughing, and increasing the physicality of play. This social interaction and mutual enjoyment of the exhibit is doubtless increasing both participant's willingness to engage in their surroundings, and contributes to increased chances for learning and scaffolding opportunities between the pair. In an interesting role reversal between Grace's mother and the researcher, Grace turns toward the researcher apparently to check the *researcher's* reaction to her mother's funny behavior, showing that perhaps the child has become aware of the researcher's role of 'authority' in the museum exhibit.

Grace: Mother shows the picture above the screen, and she says something and the child laughs. The mother wiggles her body from up to down and makes funny noises with her mouth, child repeats the same movement after her and they both laugh. Child looks back at the researcher and then looks back at the screen. Mom laughs and they start moving from the spot.

4.1.4 Independence: Now I Don't Want to Leave

Claire: [Claire] climbs out from under the table and pops up, smiling at the researcher and saying "hup!". The researcher laughs and says "kukkuu!". The child jumps back down under the table giggling. Mom and child crouch under the table for another moment before both emerge from opposite sides. The child skips a few skips across the room, stopping in front of the suitcase and toys display. The child peers into the empty suitcase before spinning around and facing the other side of the room. She glances at mom once and turns back to the side of the room she hasn't explored yet. She takes some slow steps in that direction.

While Mom's presence in the room is still noted by Claire, she feels secure enough at this point, based on the previous hours spent getting to know the exhibit together with her mother, that she is in a safe place where she is allowed to explore freely. Mom's presence in the room is mediating Claire's experience by providing the social reference point to her, satisfying her feeling of security and freedom to explore safely. She confidently goes off on her own now, while her mother and the researchers stay chatting in the sitting area.

Claire: Mother and two researchers are seated, in the seating area in front of the play area. Nearby, the child is watching the Mole cartoon on a mounted screen. No one directs any speech to the child or demands any attention. She doesn't turn around, despite the three adults chatting amongst themselves. The child stares at the screen while holding the speaker device for 1 minute, 40 seconds. She slowly lowers the forgotten speaker as she watches the screen. She hangs the speaker device back onto the wall and glances at the entrance to the play area. She smiles and ducks through the door to the play area. When she is halfway through the door, she pops back out again, looking up at the screen from a seated position in the doorway. She watches for a few seconds and then looks over at the researchers. She smiles and rolls into the play area through the opening. (2:00) Thumping about can be heard but the child is unseen by the camera.

Again, the child is acting independently, pursuing her own interests, while still acknowledging mom's presence in the exhibit. She moves her attention from stimulus to stimulus and back again without guidance from outside or external referencing. It is amusing to note that at this point Mom has asked the child if she is ready to leave the museum to go have lunch multiple times. Questions which

have gone unanswered by the child. She has become interested in continuing her engagement in the exhibit, having been pulled by the objects' agency in inviting exploration and interaction, and having been encouraged by the presence of, and scaffolding by, the adults in the social arena.

Claire: She disappears, and several loud thumps are heard. The child shouts and suddenly appears in the entrance hole, peeking behind the artificial tree root and peering at the adults. She is smiling. She says "kukkuu!". She makes a "come" motion with her hand while peeking through the roots and the researcher who had been recording stands up to join the child while the second researcher takes over recording. The first researcher hops around in the space, picking up a stuffed animal and hiding around the artificial mushroom. She makes the stuffed animal do some hopping motions. The child takes two big hops toward the researcher. The recording ends. (Mother and Daughter 1, Recording 6)

In this vignette Claire has created a playful bond with the researcher, a new friend for her, and she continues to explore the fun and enjoyment this new person affords the situation. Apparently, the researcher, after having spent so much time in her and her mother's company, and after observing the friendly chats between the researchers (one of whom is a familiar family friend) and her mother have potentially contributed to the child's feeling of comfort and confidence in the setting. Without perhaps intending to, the child and researcher were mutually drawn to each other and explore the ways in which their experiences are possible in each other's company.

After observing the ways in which children used social referencing to mediate their behavior, and in turn, their engagement with the museum objects, it is clear that it serves as a type of cue the children used to help them decide what was allowed, what was safe, and what was enjoyable. In time, the confidence and comfort that came from repeated positive experiences through this phenomenon encouraged the children to peruse their surroundings freely, engaging with the objects in the area in diverse ways, and inviting opportunities for novel experiences and learning through scaffolding, either by adults and peers, or by the objects themselves.

4.2 Scaffolding

Across all the families our team observed visiting the Kaleidoscope of Childhoods exhibit, all children participated in some form of scaffolding, whether that was in connection with a parent, a sibling or friend, the images and film displayed in the environment, or even the researcher. Sociocultural learning theory is largely credited to Russian psychologist Lev Vygotsky. His reasoning was heavily influenced by Marxist philosophy, which framed human understanding as a fluid phenomenon impacted by the social and physical environment (McInerney et al., 2011). Vygotsky, in his turn, believed that learning would happen first *between* individuals before they occur *within* the individual. The zone of proximal development (ZPD) is understood as the space between a person's ability or understanding without assistance, and their ability after having assistance or "scaffolding" from someone else with more experience or understanding (Vygotsky, 1978). At the core of Vygotskian sociocultural theory is the concern with how contextual details including individual and social environments influence human learning and behavior. The understanding that learning occurs both at the individual and social levels and is reflected in observable behaviors allows us to interpret the ways the sociocultural context informs the child's understanding and, subsequently, actions (McInerney et al., 2011).

The way this was often observed in the data happened usually when the child came over to an aspect of the exhibit which interested them, inspected it and tried to make use of it, before a parent or other person coming over to use the object in the "correct" way, after which the child would take the item back and continue to engage with it in the same way the parent did. These occurrences saw the children learning about the objects or surroundings and how to engage with them "properly" by watching a more experienced person interact with the object. Very interestingly, we can also note here the constructed nature of humans' understanding of the "correct" or "proper" way to engage with various objects, especially in the museum environment. As many of the objects with which the children came into contact were historical in some way, it was interesting to observe the children's process to figure out what these unfamiliar objects from the past were or meant, and how to engage with them. The parents then, recognizing certain of the objects from their own childhoods, or by reading

the available placards, were able to apply their own socio-historical and cultural experience to the scaffolding of their children, a phenomenon which will be discussed separately later.

4.2.1 Mother and Daughter 1: Speaker Device

Mother reaches for the handheld speaker device next to the screen. Child follows mother with a step, keeping close, but does not look away from the screen. (4:22) Mother listens to the speaker device and then offers it to the child, who does not reach for it, but listens. Mother motions for the child to take the device in her own hand and speaks as well. The child glances at the device as she takes it, holding it at elbow height. Mom takes a step back and the child again turns to the screen, for the first time not moving toward mom as she steps back. The child gazes at the screen for nearly a full minute. The researcher circles around behind the child, and the child notices out of the corner of her eye and turns her head to the researcher and looking at her for a moment before turning her body and face back to the screen. However, she glances out of the corner of her eye at the researcher several times and is distracted from the screen for a second. (5:28) The child is still watching the screen and holding the speaker at elbow height. Mother steps toward the child and lifts the speaker to her own ear while still in the child's hand. Child glances away from the screen for a moment and points at it with her other hand. (5:44) The child releases the speaker and mother holds it. Mother motions toward the speaker's wall holster with the speaker and speaks to the child, who turns her eyes to the speaker now. Child takes the speaker in hand and hangs it back on the wall, glancing at the screen one last time as she turns her body away from it to follow her mother's movement toward the opening of the forest themed play area. (Mother and Daughter 1, Recording 1, 4:10-5:50)

This interaction is interesting, as the mother is attempting to scaffold her child's use of the speaker device while watching the cartoon. However, the child seems to be too engrossed in watching the screen and isn't able to benefit from the parent's efforts. Despite the mother trying to encourage her on more than one instance, the child never does complete the mother's desired action of successfully listening to the sounds of the cartoon video via the hand-held speaker device. This suggests that in addition to Vygotsky's "more competent or knowledgeable person" demonstrating the skill to be acquired, there is also a component of motivation or attention required on the part of the learner. Up until this moment in the engagement with the cartoon video on the screen and audio via the speaker device, the visual component is taking all the child's attention, despite the mother trying to divert the child's attention to the speaker. The observation continues with the mother and child entering the play forest area.

[The child] turns her body to re-enter the play space, but hesitates, glancing back at the screen again. She again moves her body to face the screen directly in front of it. She reaches for the speaker device, but mom says “hoo hoo!” loudly [from inside the forest play area] and the child leaves it and runs back into the play space. (Mother and Daughter 1, Recording 1, 7:15)

Here we see the continuation of the child being unable to benefit from the mother’s earlier scaffolding due to unsustained attention. This time the child’s interest is called back to the forest play area by hearing the mother’s voice calling to her. The pair explore the play area together, noticing the textures and materials inside, and playing with the two stuffed animals. The child continues to show interest in the screen showing cartoons, which is displayed just outside the play space, next to the small, child-size entrance hole. Again, the child’s gaze and attention are drawn towards it:

While just outside of the opening she twists her body toward the screen on the outside wall, where she was first watching the cartoons earlier. She watches the screen while on hands and knees. After some seconds of watching from hands and knees, the child stands and positions herself directly in front of the screen, reaching for the speaker. She touches it for a moment while eyes are fixated on the screen, but she does not pick the speaker up out of the holster. (Mother and Daughter 1, Recording 1, 8:32)

It appears that the child does recall her mother having used the speaker device earlier, and in reaching for it and resting her fingers on it, is thinking about exploring its function for herself. However, as before, her attention is riveted to the visual aspect of the display, and she is fully focused on the screen and does not complete the “proper” use of the speaker device. The child ends up ducking back into the forest play area when a stranger’s deep voice breaks her attention to the screen, without lifting the speaker or listening to it. The child and mother go to explore other areas of the exhibit and before the end of their visit the three adults sit together chatting in the seating area. The mother and daughter have been in the museum for over one hour. Intrigued by the child’s continued, periodic fixation with the cartoon screen, a researcher begins recording again:

The child is once more standing in front of the screen and holds the speaker to her ear. Mother and two researchers are seated in the area in front of the forest play space. No one directs any speech to the child or demands any attention. She doesn’t turn around, despite the three adults chatting amongst themselves. The child stares at the screen while holding the speaker device to her ear for 1 minute, 40 seconds. She slowly lowers the forgotten speaker as she watches the screen. She hangs the speaker device back onto the wall

and glances at the entrance to the play area. (Mother and Daughter 1, Recording 6, 0:00-2:00)

At this point the adults in the setting have turned their attention more toward each other, and have stopped putting attention on the child, nor do they make any demands on her attention. As she plays alone, she remembers again the screen, and finally takes the opportunity to pick up the speaker device and hold it to her ear. She has achieved the task that her mother was demonstrating for her more than one hour ago, now that she is not distracted by other factors. She places the speaker back in its holster on the way, as her mother had done before.

4.2.2 Mother and Daughter 1: Nevalyashka

Mom picks up the nevalyashka doll and hands the toy to the child who grips it in both hands. Mom motions with her hands toward the floor and she places the toy on the floor, which makes a jingle sound. Mom now crouches down and makes a twirling motion above the toy with her index finger which the child follows with her gaze. The mom pushes the top of the toy with her index finger and it wobbles around, jingling. The child reaches forward immediately and steadies the toy. Mom says something to the child and pushes the toy again. This time the child watches while the toy rocks back and forth and jingles. She starts to grab for it but stops as the toy starts to balance itself upright, the rocks getting smaller and jingling getting faster. The child taps the toy gently with one finger, but it doesn't jingle. She picks it an inch off the floor and sets it down quickly, listening to the small jingle it makes. The child glances back at the toy and pokes it in the side with her finger and listens to the jingle. Now mom pushes the toy with one finger, holding it, so that its head is parallel to the floor. She is speaking to the child while doing this, possibly explaining to her how to use the toy. She lifts her finger and the toy springs up from the floor, making a lot of noise. The child watches closely until the toy again stops moving and jingling. The child places her hand on the top of the doll's head for a moment, watching it. Then she picks the toy up and places it in the basket on the wall. (Mother & Daughter 1, Recording 3, 2:32)

In this vignette, the mother first shows the child how one can play with this toy. Interested by the sound and movement of the toy in motion, the child attempts to make the same reaction by experimenting with the toy herself. The mother attempts to scaffold the child's learning by explaining in words and demonstrating the mechanics of the toy. The child continues to experiment, but after several failed attempts to mimic the effect her mother had on the toy, the child loses interest in continuing the practice and places the toy back where she found it, signalling the end of the encounter.

4.2.3 Mother and Daughter 2: Space Shuttle

[The child] takes the space shuttle and stretches her hand towards her mother. Mother mimics flying with her hand. Child moves back and drives the shuttle through the pit. Meanwhile mother keeps explaining that object needs to fly. The child ascends the shuttle to eye level mimics the flying movement, then starts exploring the object from every side, and keeps driving it. Then she takes the rocket and makes the rocket fly. After a short time, she takes the shuttle, drives on her leg, and then makes it fly. Later, the child takes turns tapping on the doors of the truck, taking the rocket and making it fly, and flying the shuttle in her other hand. Each time child makes the shuttle and the rocket fly she gets positive affirmation from mother like nodding her head and “mmhm” sounds. Then mother points to the plane in child’s hand shows something, It looks like mother is explaining the wings, however child notices the wheels of the plane and starts driving the plane, first on her lap... (Recording 1)

In this case the child is being shown that trucks can ‘drive’, but space shuttles and rockets ‘fly’. A linguist might hypothesize that this child’s recognition of vehicles that move and her confusion regarding the ways the truck, the shuttle, and the rocket move could be attributed to ‘overgeneralization’ (Lightbrown & Spada, 2021). This happens when a language learner incorrectly applies a word or a linguistic feature to a novel object based on some similar characteristic stemming from previous experience, in this case: wheels. To the child, the novel shuttle should be driven like the truck because of its visible wheels, whereas she knew the rocket should be flown, due to its lack of wheels. Her mother is seen speaking to her in the recording and motioning flight with her hand. Perhaps she is scaffolding her child to understand that because of the presence of wings, both the rocket and the shuttle are meant to fly. While the child’s previous experience has taught her that vehicles with wheels should be driven, her more experienced and knowledgeable mother is scaffolding by demonstrating the significance of a vehicle’s wings. In addition to scaffolding, there is also a component here of positive reinforcement, a well-known concept from behaviorist theory described by BF Skinner (1938). Whereby repeated pleasurable stimuli result in the child learning to perform the desired outcome, in this case: ‘flying’ the space shuttle.

4.2.4 Mother and Daughter 2: From Learner to Teacher

While exploring the exhibit containing a suitcase, and various toys and objects one may wish to pack and take along on a journey, it was interesting to observe

the way in which the young child observed how her mother interacted with and named each item in the exhibit: flashlight, apple, pear, doll, etc.

Child approaches the suitcase very quickly and bends down and lifts the apple [toy] from inside. Mother bends down behind the child and talks to her in calm voice. The mother points to the other objects inside the suitcase... She lifts every item one by one and shows to the mother and mother tells their names. Now they speak English...The child finds the flashlight, shows it to the mother, the mother turns the light on and gives it to the child. Child directs the light to the further distance, then turns back quickly to the researcher. Mother points to the texts on the wall. Then the child puts her hand in front of the light and starts wiggling it. Then mother places her hand in front of the wall and makes movements, while child directs the light towards mother's hand. (Recording 2)

In this instance we can watch as the child lets her mother familiarize the child with the various items on the shelf and inside the suitcase. The child sees how to turn on the flashlight and starts experimenting with manipulating the beam of the light and its effect on objects and their shadows. While engaging with the objects, the child notices the researcher observing her.

Then the child directs light towards her mother's face and then back to hands, towards the toys on the shelf, inside the suitcase, towards the camera and gives a researcher a shy smile. Then she quickly turns the light towards the suitcase. Then she directs the light to the shelf, meanwhile the researcher coughs and the child turns back at her and smiles. And then she directs the light back it the researcher one more time and then turns the flashlight off. The child starts showing the items inside the suitcase to the camera. First, she takes the orange, then she takes the flashlight again turns it on. (Recording 2)

The child is intrigued by the researcher's gaze and starts to re-enact the learning process she just undertook with her mother, except this time the child acts as the knowledgeable participant and is showing the objects to the camera (researcher) in the same way her mother has just done for her (the child), including the act of turning on the flashlight on her own, which she very recently observed her mother doing. Through this vignette we see not only the child learning to engage with the objects in question based on her mother's example, but also mimics the social act of 'teaching' that she just experienced from her mother.

4.2.5 Father, Son, Daughter, and Children's Friend: Copying

Among all the family groupings we observed for this research, this group was unique in that it was the only grouping with more than one child present. It was interesting to see how the children scaffolded each other in their understandings of their surroundings and the objects and spaces contained therein. Several times it could be observed that the children, not having any inspiration for how to use the spaces, looked to each other for guidance and ideas for how to engage, explore, or play.

Back at the forest play area the friend has taken off his shoes just inside the entrance hole and set them outside of it. The younger sibling now crawls through the hole, sits, and removes her own shoes in the same way before continuing into the play area. Inside the area, the friend is hopping from one "stone" cushion to the other, in a frog-style movement. [The "stones" are made of grey felt filled with fluff so they are soft and squishy] The younger sibling is watching him. Now she walks over to one of the stones and feels it with her foot. She stamps on it with one foot, as if to test it. The friend comes and jumps on and off of the one she was testing. Now she jumps onto and off of it with both feet in the same fashion as the friend, but in a slower movement. The friend jumps over to the corner of the play area where there is another screen mounted on the wall showing nature images. He kneels in front of it for a moment, but then turns around and sees the younger sibling. He stands up and runs over to her. Hopping on the stones along the way. He glances at the toddler playing in the room and stone hops back over to the screen, kneeling down in front of it for only a second before standing back up and jumping onto the big stone next to it. Now the younger sibling has noticed what he is doing, and she follows the same path of stones hopping over to the screen. The friend attempts to jump from the biggest stone to one near the opposite side of the room, a large distance for him. He jumps but doesn't quite make it, he does a little hop onto the stone he was aiming for. Now the girl stands on the biggest stone and looks toward where the friend is now standing. She does a jump but only makes it about halfway to the stone where her friend is now crouching. (Father, Son, Daughter and Children's Friend, Recording 1, 5:00-7:00)

The little girl in this vignette is looking to her older friend who seems to be more confident in exploring the forest play area and enjoys observing what he does and then copying. As she follows her more confident friend, she too gains confidence and becomes less hesitant within the space. Her game of watching and copying demonstrates the positive emotion she elicits from their interactions and proves that the presence of her friend is indeed mediating the girl's experience in the space: both by scaffolding her skills in the game, as well as creating enjoyment for her, which increases the time she is engaged with the

exhibit. The environment also influences the play and learning by simply affording the physical space and invitation for engagement through enticing colors, interesting and varied textures to experiment with, and objects which activate the children's imaginary play. This imaginary play and exploration is seen in the following vignette. The little girl is enticed by the mole stuffed animal. During her visit, she cradles it, rocks it, shows it to her father, and dances with it, spinning around in circles. She keeps coming back to it whenever she is present in the forest play area. She enjoys her repeated engagement with the toy, and while she copies her friend's actions and play, she continues to hold the toy, as if it is her 'own' aspect of the play. This child-object engagement likely comforted the child in this novel setting and allowed her the security to continue exploring her surroundings and copying her friend's game, learning from them and gathering new experiences.

The boy reaches the screen in the corner again, with the rabbit in his arms. He crouches down in front of the screen, with his face turned toward it. He kneels in front of the screen and touches it with his pointer finger. He moves his finger around on the screen, in a similar way one would use a touch screen device. The father puts the phone away and leans over to see what the boy is doing. The little girl is dancing, jumping, and spinning with the mole toy held out in front of her like a dance partner... [The little girl] walks over to the screen in the corner and kneels down in front of it. She reaches out with her pointer finger and starts to "swipe" the screen with it. She repeats this swiping motion with her finger for several seconds before putting her hand back in her lap (she is holding the mole animal in her other arm) and watching the screen for several more seconds. She then stands up and turns away from the screen, walks over to the center of the room, and continues her spinning/dancing with the mole animal. (Father, Son, Daughter, and Children's Friend, Recording 3, 2:00-3:30)

After several minutes following the instance where the girl observed the older friend testing if the screen was touch-sensitive, the girl tried to see for herself if it indeed was, despite having already seen the non-reaction of the screen when the friend tried it earlier. This could show that the girl didn't necessarily learn through scaffolding that the screen was not touch-sensitive, but she could be said to have learned to experiment with the objects and surroundings, and to test the functions and uses of the components.

4.2.6 Mother, Father, and Daughter: Distractions Everywhere

This visiting family was the only family we included in our result in which both parents of the child were present during the observation. The parents' cultural, linguistic, and national identities were different and both parents were quite hands-off and allowed their daughter to lead the exploration of the exhibit and the surroundings. The two-year-old bounced from object to object without spending much time at any of them, and often carried artifacts from one area with her while exploring other sections, with her parents tidying the objects back to their original areas behind her. The novel objects interested her and captivated her enough to lift and carry them with her for further consideration, until she would become captivated by the next object, causing abandonment of the previous, seemingly forgotten, object. At various instances one parent would take their girl's momentary interest as an opportunity to explore an object or toy more deeply. Several of those instances are described below:

Mother comes takes the [nevalyashka] toy and puts it inside the suitcase and explains verbally how to play with the toy and gives it a slight push on the head of the toy and it jingles. The child takes the toy by the head and shakes it in her hand, takes the car in the other hand, puts it down and starts driving back and forth. Mother says "Oho". The child leaves the car on the floor, stands up, shakes the nevalyashka toy, takes it from hands, turns around, checks back side, shakes close to her ears and bends towards it. She takes the pig toy in the other hand and gives it to her mother. Her mother puts it inside the suitcase. (2.36) She shakes the [nevalyashka] toy for a while, stretches it towards her mother, then suddenly runs towards the flamingo lamp...

In this instance we can see the mother attempting to show and explain to her daughter how to play with the nevalyashka doll, as well as physically demonstrating it for the child. However, she is possibly not able to concentrate long enough to make the connection between the cause (rocking the toy by applying force to it) and the effect (the jingling noise) and simply takes the toy in hand, shaking it to make the delightful sound before becoming distracted by the flamingo neon lamp nearby, ending any further attempts to scaffold the child's learning on behalf of the mother. As we have acknowledged that objects have their own agency to invite interest and engagement, it seems that this child in this instance is easily distracted from her parents' direction by the sheer number of interesting items within her surroundings.

The child follows her mother while she is showing how to put the puzzles together. Lila also contributes putting puzzles together with mother and mother say “Uhm”. Then the child gets distracted by the noise of children playing on the other side and stops doing the puzzles and stares towards the sound for a while. Mother notices it, steps back and lets the child watch. And after a short time, the child notices a piece of puzzle and shows it to mother and puts it together with the rest of installation. Then she excitedly stretches to the other pieces of the puzzles on the wall, plays on her own...

Again, we see an example of attention being paid to the scaffolder by the learner as being of paramount importance. The mother gives the child some time and space to observe the object of her distraction, but in this case the child overcomes the distraction and returns to putting the puzzle pieces together. After having observed her mother putting pieces together, the girl rejoices when she is able to contribute a piece to the project and enjoys her mother’s positive reinforcement through her encouraging “mhmm” sounds.

The implications of these interactions point to the social interactions with others, including humans and non-human objects as scaffolders, as influential in children’s engagement and subsequently learning processes during their explorations of the museum exhibit. Not only do attempts at scaffolding by parents and others often hold the child’s attention and prolong their interest in the space and objects, but the mediation of others and the affordances of the space and objects as social entities and scaffolders themselves also enhanced the children’s experiences and provided more opportunities for learning.

4.3 Children’s Sociocultural Experiences

There are many ways children can learn in museums as museum exhibits are environments offering a range of experiences and new things to try and learn. Adults visiting the museum with children can play great roles, mediating the children’s museum experiences and expanding children’s knowledge and skills through interactions and explanations. Vygotsky emphasized the importance of the environment in the meaning making process (Kozulin, 2003, p. 17). The environment, cultural and traditional values and beliefs, as well as adults and other community members surrounding child’s life are essential mediating agents in their development and learning. Social experiences the children undergo because of the changes in their growing and learning environment or culture

around them shape the meaning making process for them. When a child's interaction or engagement is accompanied by an emotional load, perception of the information becomes easier and more attractive for the child. Also, when internalising the perceived information with their own emotions and experiences, children make meaning and create new knowledge (Kozulin, 2003, p. 129). These experiences, as we observed, were increased when the child perceived their interactions with objects as 'play'. This was further enhanced in our research by parents' previous experiences and their instinct to share their own joyful memories and experiences with their children.

Childhood is a cultural construction and children's development and learning experiences are shaped vastly according to what children are *expected* to learn, dictated by the community to which the child belongs (Brookshaw, 2009). Adults who are part of children's experiences along with the children themselves have paramount importance in influencing children's internal motivation, or other words, learner's agency in exploring and seeking for information. When adults show elevated motivation towards certain things it increases the chances of the children's engagement with that particular thing more actively.

During our observations we noticed that when the parents were familiar with the objects from their own childhoods and had some emotional connections to that object, it made it more appealing for the children to start engaging with that object. Parent's social and cultural experiences towards certain objects provoked scaffolding processes, and parents were happy to teach them more about the objects. Parents were giving signals of excitement, such as smiling or discussing the objects with us researchers, or pointing to it, which caused the children to approach and become curious about the object. Emotional value placed and excitement shown by parents in different parts of the exhibit transferred to the play within the area and with certain objects. The children stopping in that area or spending more time exploring and touching was also observed. Hence, we have two different approaches on socio-cultural experiences interpreted in the engagement.

First, when parents had more sentimental and positive connection to the museum artifacts bringing to mind their childhood memories, their engagement was observed to be more playful. They would likely motivate their children to spend more time engaging with the object and they were willing to participate in

the exploration process together with child(ren). This is observable in the vignette of the Nevalyashka doll.

Second, when parents had negative emotions related to the object, they tended to interrupt the engagement with the object and distract children's attention with something else. This hypothesis is explained in the sample of the Lenin's Bust.

4.3.1 Nevalyashka: Soviet Rolly-Polly Doll

One of those objects was the "Nevalyashka" doll that jingles and rocks when pushed gently. This toy was one of the very famous toys across different countries within the influence of Soviet ideology. In our observations, the toy had very strong agency in initiating play, and almost all the children we observed actively engaged with the toy by touching it, observing it, and listening to the sound it makes. However, the parents interacted and engaged with the toy in different ways. The ones who were familiar with it from their own childhoods expressed increased emotions towards it, such as showing excitement, hastily walking towards it, and playing with it by pushing or pointing at it, and giving an explanation or reminiscence about it, either to their children or to us researchers. The excitement from the familiar object led to more time being spent around the artefact and resulted in invitations to their children to play with it as well. Parents' engagement with the object was more playful, and at the same time more assertive. However, parents who were not that familiar with the toy were likely to leave the exploration process up to the child and not engage with it themselves. Their engagement was more likely simply explaining how it works or observing their child's exploration from the sidelines. As soon as the child lost interest, those adults were likely to direct the child's interest to something else.

For example, in the vignette below we can see how a parent's (who had no emotional connection with the toy) first encounter with the toy shaped the child's experience:

The child notices the shelf with "Nevalyashka". She points at the pig, mother approaches and they touch it slightly, mother explains something in soft voice. Then the child touches the Nevalyashka toy and it jingles. She attempts to take it in her hands but mother stops her with both hands motion and puts the toy back to the shelf. The toy sways from side to side, mother

steps back and they look how it sways. Child looks down, rolls her lips, fidgets with her left foot, and looks at the researcher. Then she looks back at the direction of the jingly sound, looks down and quickly looks back at the shelf after mother points and tells her something in soft voice. She points to the green plastic toy inside the suitcase, she lifts it a little bit, mother says its name. (Mother and Daughter 2, Recording 2, 8:07-8:25)

From this vignette we can see that the object was inviting the child to play with it and the parent was not very interested to spend more time playing with it and letting the child take the toy in her hands, although she showed how the toy works, she did not initiate further active play with the object. Rather, she treated it as a formal museum artefact. Instead, they observed the toy from the side while it was making a noise and the mother shifted the interest towards other toys as soon as it stopped. Later in the observation the child did not try to engage with that toy anymore, although she was playing around the area and playing with other toys exposed in the exhibit.

In the following vignette of a different family, we can see the increased interest towards the object and invitation to play with it.

...Mom had been reacting to the “Nevalyashka” toy by making an excited sound, while child was in the other part of the exhibit. Mom is holding it in her hand when the child reaches her. Mom hands the toy to the child, she grips it in both hands, looking for a moment at the suitcase and other toys before turning away from it to look at the rest of the room. Mom says something to the child their language who turns around and walks back to the suitcase, placing the toy inside it for a moment. While the mother is standing in that area and watching the child. Mom says something again and the child picks the toy up again and looks at mom. Mom motions with her hands toward the floor and the child follows that with her gaze and places the toy on the floor. The toy makes a jingle sound, and the child takes her hands away from it and kneels next to it. Mom takes a step forward and bends down next to the child while speaking. (Mother and Daughter 1, Recording 3, 1:27-02:35)

In this sample we see that the child approaches the toy as the parent reacts to it. Although the mother hands the toy to her, she is not interested in it very much in the beginning, and the mother insists on engagement by constantly telling how to do it, not leaving the area, making hand movements, and showing how to play with the object. This eventually resulted in the child sitting and playing with it. The child changed her passive engagement of standing and looking to active play with the Nevalyashka toy because of her mother’s excitement which stemmed from the mother’s own childhood experiences with the same toy. The

mother of this snippet is from former East Germany, and she was quite excited seeing this toy as it was something from her childhood. The researcher and the mother exchanged a quick word while taking the observation video, where the researcher described having the same reaction when seeing the toy. The mother was eager and excited to share details of her experience with her toy from her childhood with the researcher. Hence, the mother's high motivation came from being culturally connected to the exhibit and in its turn, it caused active scaffolding and playing with the toy for a longer time.

In the following sample the child is visiting the museum with a mother who grew up under the Soviet sphere of influence a father with a "western" upbringing.

The child approaches the shelf and points at the Nevalyashka, touches it through wires and it jingles slightly. Father approaches from behind and grabs the toy from head and it sways from side to side and jingles stronger. The child takes step back and then approaches the toy and tries to jingle it again. She is having an apple toy in her other hand. She looks at it, comes closer to the shelf and touches the Nevalyashka toy again. Then she grabs it from the head and takes it out of the shelf. Mother approaches them from the other side. Father stretches his hand, and the child shakes the toy close to his hand. Mother comes and takes the toy from her hand, puts it inside the suitcase and explains verbally how to play with the toy and gives a slight push on the head of the toy and it jingles. The child takes the toy from head and shakes it in her hand, takes the car on the other hand, puts it down and starts driving back and forth. Mother says "Oho". The child leaves the car on the floor, stands up, shakes the Nevalyashka toy, takes it from hands, turns around, checks back side, shakes close to her ears and bends towards it. (Mother, Father and Daughter, 1:53-2:09)

In museums parents interact with their children by explaining things, helping children to search for clues, and helping them to link new information to previous knowledge (Sobel et al., 2021). Open-endedness of this museum exhibit allows parents to engage with the artefacts in a more comfortable and familiar way. In this sample the child is leading the exploration process and tries to engage with the doll that makes noise. Not knowing the museum rules, she tried to reach out for the object through the wires and her father is there allowing her to explore and helps her in the process, by stretching his hand to the toy and taking it out of the shelf. The child seems very interested in the noise the object makes as she moves along and makes open signs of shaking the object, grooving to the jingles, and bringing it to her ears. Her father also supports his child's curiosity by holding the toy in his hands, accessible to her. Earlier in the observation the mother was explaining something to him by pointing at that very toy. Seeing that her child was

losing interest in the toy, the mother approaches them from the other side and insists on taking the toy in her hand and showing the child how to play with the object. Later they spend some time allowing the child to play with the toy and she becomes very engaged in the toy as she takes it to the other part of the exhibit, tries its noise on different objects and different distances, as well as shows it to her father. Although she plays with some other toys as well, she wants that toy to be around her. The child's holding the toy and going to the other objects with it in her hands shows the playful motivation introduced by her mother. Here we observe the persistence of the mother (who has previous experience playing with the toy as a child) supporting the play with the object by dancing to the jingles as the child shakes the toy and allowing her to play and explore the toy for a long time. On the other hand, although father is there to help the child to navigate through the museum, his interest in the object is not as elevated as the mother's.

The child gives the toy to father. Father gives a reluctant look at the toy and explores it for a while in his hand. (Mother, Father, and Daughter, 3:43)

4.3.2 Lenin's Bust

Another very particular artefact of the "Kaleidoscope of Childhoods" exhibition was the billboard with the busts of Lenin. It was interesting to observe the engagement around this object as Lenin was one of the main faces of Soviet ideology and parents who were familiar with him from childhood experiences tended to have rather negative or no motivation to engage around it. In the snippet below the mother who is from East Germany exchanges sarcastic comment with the researcher, they both sound very ironic and that is almost all the interaction about the object.

Mother is walking around the exhibit and child is following. Mom is looking at things closely, noticed Lenin's bust and making derisive comments to the researcher. When mom makes a comment to the researcher the child watches the exchange and then looks closely at the item mom is looking at. Mom stands in the area where the Lenin's bust and huge bow is exhibited, picks up the listening device. Child looks at mom and takes a few steps closer, still watching mom carefully (Mother and Daughter 1, Recording 2, 0:32)

As we see, although mother has knowledge about Lenin and the experience to share, she chooses to distract child's attention to the speaker device and later we do not observe any further interaction with the object at all.

In the other example the mother from Azerbaijan, a nation formerly under Soviet influence, did not make any comments, seemingly ignored it, and prevented the child from playing around the area, rather calling her daughter to approach to the different items. By moving slowly backwards and standing in front of the billboard, the mother shows defiant body language and by shielding the billboard with her posture and she did not allow the child to enter that area.

She stops at the touch screen, swings at the table. Then mother goes to the other side where Lenin's bust and a huge bow is exhibited and calls her to follow. Child runs towards the direction mother calls her. The child notices the big bow hanging from the ceiling and stretches to touch it. Mother exchanges quick comment with the researcher and laughs. Meanwhile the child notices the glass showcase in front of Lenin's bust and she tries to touch it as well, mother tries to prevent her by stretching her hand and calls her daughter to see the photos of the bows. Then she moves gradually backwards and stands with her back to Lenin's bust and the glass in front of the bow. (Mother, Father, and Daughter, 8:32-9:05)

In the next sample below, the mother had no emotional experience with Lenin from childhood. We had no information whether she knew him or not, but while the child was leading the exploration process the mother participated in the process along with the child. By tapping on each item, the child initiated a counting game and her mother was pleased by the child's learning and was encouraging it by questioning to explore and learn more. The scaffolding and engagement around the Lenin's bust were more about mathematical thinking, than the mother's cultural or historical knowledge and symbolism of the artefact.

Child notices Lenin's billboard, points at the photos of Lenin, mother approaches to her, kneels down and child appears to be counting busts of Lenin as she touches to it and says something in her language, mother affirms with "Aha" each time. Then mother starts speaking in their language and point at the board, she sounds like asking a question. The child taps at the photos and then glides her hands on the photos meanwhile mother nods positively and makes "uhm" sounding affirmations and then they move to the other side of the exhibition. (Mother and daughter, Recording 2, 04.41)

In both scenarios we see how parents' previous experiences and emotional attachment to the familiar object can influence on the levels of the engagement and exploration in the museums. When parents show more positive signs towards

the object it leads to playful interaction and when the reaction is negative, or the object is ignored, children did not show interest to mingle around the objects or their interest was distracted away from that object.

4.4 Children's Engagement with Museum Artifacts

To observe the spontaneous play elements initiated by children we are going to use the observation lenses referred to as vitality effect, interpersonal field, and holding (Alcock, 2019). Through the vitality lenses of the observation, we are going to write the details of non-verbal connection and bodily expressions during the play as well as the energy, sounds and looks or eye-contact and so on, as they are observed.

As per Alcock's description, interpersonal field refers to both physical environment and social context in which children choose to play. Children's feelings and thoughts shift from objects to people by creating their own play. Holding explains the feeling of security, letting the play happen and creating meaning in a safe environment. Usually, the holding effect happens when there is an adult participating in the play to keep the energy levels safe and letting other children participate in the play as well and mostly refers to the places like kindergartens where the boisterous and spontaneous games might erupt (Alcock, 2019). However, considering the museum environment, one might assume that the space itself will play this role. In museums children do not only learn from the interactions and explanations, but also from the space and the emotions museums awaken in children. It is a safe place to wonder, be curious, and get confused since the objects that are familiar to them from everyday life have other purposes. In museums we cannot use the same objects in usual manner as at homes, everyday objects change their duty to satisfy our aesthetics and world view instead (Hackett et al., 2020).

Parents' presence around the exhibits together with children had a great holding impact. As by being present in the unknown place they could hold the child, giving them a sense of security, which allows them to explore and engage with the museum materials actively.

4.4.1 Vitality Effect

Español et al. (2014) described the vitality play as synergetic play happening between children and adults in positive environments by exchanging the movements and sounds via repeating after one another and by this way creating a game. In our observation this happened not only with adults and children but also with peers and non-human objects. Children's play can be related to their curiosity to learn and understand the space through their own view. Curiosity leads to active exploration, when children are introduced open-ended situations with unknown results, children tend to engage with the objects actively and try to get results (Callanan, 2020). In general, there were many child-friendly designed areas allowing children's free movement and touching the museum artefacts. Some were very provocative and inviting to play, while other objects were meant for adults which still caught children's attention. At these times, parents tend to improvise the games and sounds to follow children's interest and make the objects interesting for the children. For example:

The child notices the screen points to it and tries to reach mother's hands asking upwards, mother shows the picture above the screen, and she says something and the child laughs and then the mother wiggles her body from up to down and makes funny noises with her mouth, child repeats the same movement after her and they both laugh. (Mother and Daughter 2)

The picture that the pair had noticed in this vignette is a picture of communist workers in the background of the sunrise or sunset. It was hanging in the higher part of the walls, indicating that it addressed the adult visitors. However, by adding the waggling moves and funny noises the mother turned the process of gaining new information into play and by watching and laughing the child showed elements of reciprocity and dialogue as described by Español (2014).

Besides the above, there were multiple situations where we noticed parents giving sounds to the objects or making shorts sounds like "Huhu", "Kuku" to initiate the play or invite children to engage in the certain objects. In the space designed area while two toddler participants on separate visits tried to play with the rocket, parents standing beside them always used hand motions upwards and used "whooshing" sounds to make the rocket fly. By making sounds, parents entered children's play and enlivened the experience, further holding the child in the engagement and participating in their meaning-making process. The example

below is one of the examples where a parent was playing with the child by initiating the sound of the object and scaffolding the child's knowledge.

She drives the plane and makes it fly towards? the end of the lane; she looks towards the sound (People chatter). Then she keeps driving the plane on the bumpy surface, then stretches her legs and drives the plane on her legs. Mother keeps explaining by making noise and showing with hands the flying movement of the object. (Mother and Daughter 2)

The vitality form of the play also reinforces giving the objects extra powers by impersonating them. This means the object or toy the child is playing with gets some humane characters such as jumping or speaking, singing, or feeling pain.

Having the stuffed toys in the forestry designed area created many forms of vitality play. Parents entering the area together with children tend to make amusing sounds, trying to impersonate the toys and in this way inviting their children to play with them or get them back to the area when they are distracted by the screen.

She again moves her body to face the screen directly in front of it. She reaches for the speaker device, but mom says "hoo hoo!" loudly and the child leaves it and runs back into the play space. Mom looks all around her and touches the different surfaces, feeling the different materials used to construct the play area. Child picks up one of the stuffed animals earlier discarded and hands it to mom, who takes it in two hands. The child picks up the other stuffed animal. (Mother and Daughter 1, Recording 1, 7:32)

Stuffed toys became immediate friends, as children were hugging them tightly or taking them to the screen with nature view located inside the area or jumping from stone to stone with the toys in their hugs. In one episode, a little girl dances in a circle while holding both paws of the mole and jumping with it. The toy seems to be more than a thing, it is a play partner. While she is playing with the mole, she seems to be very gentle with it, hugging and holding hands. However, after a while she gets bored and decides to join her peers outside the area. At that moment, the mole stops being a friend and becomes a thing again. She throws it on the floor and runs away.

The gigantic mushroom in the forest area was many things: a shelter for children to hide behind, and umbrella to stand under, and a toy to shake, and a

slide for stuffed animals. In one episode the child asks her mother to put her on top of the mushroom as well to follow her toy friends.

Vitality play did not only happen between children and their parents but also with us researchers. At times we tended to use noises ourselves to involve the children in play and make them feel safe around us and to be less intimidated by the camera in our hands. In the vignette below we played with the children while observing them and entered their play worlds, as Alcock (2019) described.

Mom sets the pictures down and the child looks away, back to where she crawled in from. She climbs out from under the table and pops up, smiling at the researcher and saying “hup!!”. The researcher laughs and says “kukkuu!”. The child jumps back down under the table giggling (Mother and Daughter 1, Recording 3)

4.4.2 Holding

There were a few objects throughout the exhibit that had very strong agency, making children want to spend more time around them. Overall, the forest area and the cartoon film screen, the suitcase with fruits, the Nevalyashka doll, and the space designed area were very popular amongst the observed children as they spent rather long times playing with them. While some of them created an interpersonal space creating imaginary play, certain objects thrown to the area were having a holding effect and aided in calming down the physicality in children’s play. For example, the screen broadcasting the Mole cartoon in front of the forest designed play area invited children to stop and watch the cartoon. It was a very agentic object, and all the children spent quite a lot of time in front of it. There was no information for parents on how to use the area, thus the adults tended to let the children lead the museum experience. We noticed vitality play elements when parents were entering the forest play area together with the children, and their presence created safety. Parents were using these moments to scaffold in scenarios such as “bunny with ears”, jumping from rock to rock as well as trying to name the stuffed animals and so on.

An interesting observation was that almost all of the children we observed tended to use the screen as a reference, each time they went inside to play and jump they would come back and check the screen and then go back to continue playing in the forest area. The screen was also manipulating the level of

physicality in the play. While they played boisterously and actively inside the forest area, they became very static and were still in front of the screen.

The child stares at the screen while holding the speaker device for 1 minute, 40 seconds. She hangs the speaker device back onto the wall and glances at the entrance to the play area. She smiles and ducks through the door to the play area. When she is halfway through the door, she pops back out again, looking up at the screen from a seated position in the doorway. She watches for a few seconds and then looks over at the researchers. She smiles and rolls into the play area through the opening. Thumping about can be heard but the child is unseen by the camera. Suddenly she reappears in the opening and pops out of the area, turning immediately toward the screen. She watches the screen for 25 seconds before she glances over her shoulder at mom. She turns back to the screen. She is holding the listening device. After half a minute she hangs the device back up and ducks into the play area again (Mother and Daughter 1, Recording 2)

From this example we can notice how the screen holds the play and shifts the energy of the play from fast to slow.

Besides puzzles in the space designed area, the flashlight, the suitcase, and the flamingo were having the same effect. These objects were inviting the children to manipulate them, and at the same time children were playing more gently and quietly around them.

4.4.3 Interpersonal Field

While children are playing imaginary games, they create narratives and test the big and small events or concepts in the drama setting. When there are counterparts of the play this setting is turned into a “third imagined space”. Each player will be connected to their inner world, actual place, and the third place where the play occurs (Alcock,2019). Some small play engagements in the real world might take longer in children’s imagination or some plastic fruit might be a tasty real food in their game or opposite people or animals can be an object in children’s game. When there are other people participating in their play children tend to go in and out of their imaginary world, where this so-called interpersonal field occurs. In their interpersonal field they create means for socializing, learning, practicing the skills and power, sometimes with adults and other times against the adults.

In our observations we witnessed many occasions where children immersed themselves in their imaginary worlds and they played far away from the actual

meaning of the exhibition. For example, the suitcase with small objects and fruit inside was one of them. The objects inside the suitcase were probably familiar everyday toys that children have encountered in their daily lives. As they were confident using the objects, also from the pretend play we could understand that they relate to the objects placed inside the suitcase. They tended to 'eat' the fruit and share it with their parents and wiggle their body, giving the signal that the fruit is tasty. Parents also experimented with the way they joined them in their game. There was an occasion when a parent assumed that the child was not playing with the toy and returned it back to the shelf. However, when the child saw that, she dropped whatever she had in her hands and went to fetch the toy the mother had just tidied away.

[The child] approaches the suitcase, looks inside, while mother puts the jingly toy back to the shelf, the child takes the plastic radish from the suitcase and imitates eating it while Nevalyashka jingles in the background. The child puts the radish back and approaches the shelf with Nevalyashka, stretches to it, grabs it from the head and gives it a shake. Mother asks something in their language. Then the child turns and looks around as if searching for something and meanwhile shakes the toy. Looks at mother and mother wiggles her body to the rhythm of the jingles. (Mother, Father & Daughter, 3:25-3:31)

From this vignette we can see that the child had started a game that the parent was not aware of. The child was taking an object with her to different parts of the exhibition and her parent was the unknowing counterpart of the game she started. The Nevalyashka toy had meaning to her in that moment. Although she was not playing with it and handed it to her mother, it did not mean that the scenario in her imaginary world had finished. Later, the mother noticed the continuation of the game, asked her something, and played with her as the child jingled the toy. The mother participated in the child's game bodily by dancing to the jingles.

Interestingly, the area where the above-mentioned objects were located was loaded with adult-directed information and imagery. Sounds of panic, sirens, and struggling were playing overhead. However, the child managed to turn the physical space into an interpersonal playing field. The suitcase, which in the context of the exhibition was perhaps meant to symbolize the sudden mass movements undergone by civilians fleeing war and strife, turned into a fun kitchen and tasting game through this child's imagination.

5 CONCLUSIONS

5.1 *Entangled Theories*

In our thesis we tried to understand children's engagement in the museum environment from the very entrance until the time they left the space. Through the observations we tried to see how children shape their experiences and how the social environment around them affected their engagement in this or another way. As Hacket (2016) describes the museums are not only physical places having certain shape and features, but they are places offering material things, ideas, values, feelings, culture and so on. All elaborated above load huge seriousness to the museum which can be beyond the capacity of comprehension of the us humans. In the beginning of our observations this was the main dilemma. To understand how children understand the museum and the ways they engage in there would allow us to comprehend it.

Finnish ECEC promotes children learning outside of the kindergarten premises, they are encouraged to enrich their learning experiences via visits to museums, theatres, art- galleries and other cultural heritage sites, and libraries where they engage with the spaces and objects contained therein. (Finnish National Agency for Education, 2018). Understanding how children behave in different places other than traditional learning environments such as classrooms and daycare centers is an important aspect to consider.

As future ECEC educators our personal interest in this topic is to make children's museum experiences more meaningful and more positive for them during the field trips. Museum trips bring a lot of discussions and dilemma when the children on stake are especially very young children and toddlers. Through this work we tried to understand how in general children are in the museums, engagement, which is described simultaneously as 'play' and 'learning' in Core Curriculum documents and how adults or the social culture around them can orchestrate and contribute to this.

While compiling these comparisons between children and families observed, many learning theories were brought to mind. Even though those various theories have been examined in their own separate sections, it became apparent while writing each interpretation that these various approaches certainly intertwined, overlapped, and repeated ideas from each other. They explored different aspects of social learning with the use of these theories and emphasized various foci. As our findings became more developed, the way the various theoretical approaches were entangled became more and more pronounced.

Most of the literature we read described the museums as “safe place to play and explore”, “offering relaxed environment with full of familiar things”, “child-led museum activities are mostly playful engagement” which led us to idea children need to play and their play is the main thing we need to observe. (Hacket,2016; Sobel et al., 2021; Dooley & Welch, 2013) Through Stern’s Vitality lens, we saw how children reciprocate to the adults around them, invite them to their play and build trust (Alcock, 2019). Hence, while reading about the social referencing and observing the children we realized that, by referencing the trusted adults they try to understand what is allowed to engage with and understand the safety rules in unfamiliar environment through familiar and more experienced adults whether it was their parents in the beginning and later us.

In child-parent interactions we noticed a great amount of scaffolding which was meant to show the children the ‘correct’ or ‘proper’ ways to engage with the objects. A museum being a place which offers so much in common and at the same time so different from home showed us that children can engage with the materials independently and they already benefit from being there, but when adults were involved in the playful engagements, they tend to linger around the objects for longer times and become more deeply engaged with them. The time spent around each object either actively playing with it or around it and instances of carrying them to different parts of the exhibition were clear indicators of interest.

From the other side some objects had more power to lead children’s play, like the forest area where we witnessed a lot of imaginary events happening. The screen and Mole cartoon and the suitcase and space themed areas were also very active learning spaces. Their engagement involved a lot of physicality and emotional and vocal elements. Again, the time spent in those parts of the

exhibition can be considered the main indicator of the engagement, which were always increased by the presence of trusted adults and peers. Children were more eager to play with the objects that they were familiar with from somewhere else as well as when parents were showing elevated emotions towards some objects it was influencing children's choices. Or vice versa even unintentionally parents were able to distract the children from the objects they felt reluctant about. This means that every child is experiencing the museum according to the cultural fund that is built in them already over their existence. Whether they are with their parents or not they are already part of their family culture and it is reflected in their engagement and information seeking.

Each child experiences the museum in different ways. Their engagement with museum objects and the environment might indicate how they shape their museum experiences. Some objects in the museums might be more appealing for children than others, initiating more interaction and engagement around them. This might be explained firstly, with a child's previous experiences and secondly with the desire for further exploration or asking for explanations in many ways such as bodily signs or verbal communication. Adults can be part of children's engagement in museums and support the process in different ways by adding more play elements to the exploration and explanation process.

To summarize, the question of whether or not children's learning and engagement is influenced by social interaction with others has certainly been answered with a resounding yes. We observed that children whose friends, siblings, parents, and even us researchers, participated in shared experiences, scaffolding, play, and other kinds of social exchanges were indeed influenced by these interactions. Sociocultural phenomena were witnessed within each child's visit and they very obviously aided in the ebb and flow of the children's experiences. They did this by directing and holding children's attention, supporting skills development, giving confidence, and reassuring through positive feelings and fun experiences.

5.2 Implications of the Research

Being a small-scale research project, our thesis does not cover all the aspects of children's engagement in the museum environment. Rather, shedding light on how children's museum visits shape their experience and reflects on their learning is what we hope to have demonstrated herein.

For teachers: Children's engagement in the museum has paramount importance since it contributes to the experiences and knowledge children get outside of their formal educational settings. Children's learning in museums is unlike other informal learning settings such as the home environment, but also different from the classroom. Every child has their own experience in the museum which is different from their peers or adults. Museums are powerful in language teaching and provoking back and forth conversation which further opportunities for engagement and learning through social means such as scaffolding. Children's learning in the museum covers not only academic knowledge but also emotions, bodily expressions, and senses.

For parents: We believe children learn by playing, so having more playful interactions in the museum contributes to children's positive museum experiences. Children also benefit from the presence of adults in their play as was demonstrated in our observations by increased engagement and motivation. Adults should not teach or guide children all the time in the museum, but can also encourage children's learning by taking their lead, or by simply being present to provide the feeling of security in their explorations.

For museum staff: Museums should offer more spaces for children to create imaginary games. Also, museums need to consider children of different ages and their natural ways of engagement in the museum environment, creating more spaces for children's bodily sensory experiences and increasing engagement levels. Some interactive booklets or info charts directing the dialogue could be a good asset to support children's learning together with adults or peers by adding play elements to the museum experience.

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APPENDICES

Vignettes

5.2.1 Mother and Daughter 1

Recording 1:

Mother and child enter the exhibit holding hands. Child walks very close to mother and mother is speaking in a quiet tone. Child looks over her shoulder and sees the researcher. Child takes mother's hand with both of her hands before turning away from the researcher, toward the exhibit. Mother addresses researcher, sharing her first impression of the exhibit, complimenting it. Child looks at researcher as mother speaks. The child's face and posture are relaxed. Mother points out a picture on the wall and bends down to speak quietly to the child. Child glances at the picture without verbal response. The child notices the plastic teddy bear object mounted in a transparent case on the wall at her eye-level. Child points out the bear to her mother who looks at it, and the description. Mother turns to researcher to comment jokingly that she thought the bear looked familiar and then read the sign that it's from East Germany (as she is). Child watches this exchange between her mother and the researcher. The child gives a slight smile upon hearing the researcher laugh at her mother's comment. She has released her mother's hand and is holding her own hands in front of her body. The pair step to the next object, a grouping of dolls. The mother offers her hand, but the child does not take it. Her gaze and body are directed towards the case containing the dolls. The mother crouches down, pointing out some detail to the child. The mother is speaking to the child, who glances away briefly, but turns back to the dolls when the mother points to one of them while speaking. The child points to one of the dolls and speaks to the Mother who presumably answers her question. The child bends her head and upper body sideways to better view some details in the case. The child glances from mother to dolls as mother is speaking. Mother

starts to step to the side of the case and the child does the same, pointing to the dolls and speaking. While the mother responds, the child presses her hands and face up against the case. When the child looks up from the case, she sees the second researcher a distance away (someone she knows personally) and points out the researcher to the mother using the researcher's name. The mother does not answer this comment but asks the first researcher, who is recording the encounter, if they can touch the moon walking exhibit objects. The child is walking almost completely past the exhibit but turns to look as the researcher answers that they can touch almost everything in the exhibit. The mother crouches down to look at the objects and speaks to the child, whose attention turns to the exhibit. The child comes back to where the mother is crouched, and watches as the mother plays with a toy car. The mother takes her hand from the car and the child looks on for a moment. The child reaches for a toy space shuttle and crouches down to her knees, face and body turned on the exhibit objects. The mother again reaches for the car and makes a car sound effect. The child drives the space shuttle for a moment and stands up, again noticing the second (familiar) researcher standing near the exhibit entrance. The child tilts her head to the side and brings her shoulder up against her ear. While the child is turned toward the exhibit entrance, the mother takes a few steps away, exploring the objects. The child finally turns around, noticing the mother is farther away, and quickly walks toward the mother. (3:30). At this point the researcher recording indicates the children's forest play space. Mother walks toward the area and child follows. (4:10) The child's gaze follows as the mother points with her finger at some pictures on the wall. When the mother turns her gaze toward the screen with cartoons showing, so does the child's. Together they watch the film in silence for several seconds. Mother reaches for the handheld speaker device next to the screen. Child follows mother with a step, keeping close, but does not look away from the screen. (4:22) Mother listens to the speaker device and then offers it to the child, who does not reach for it, but listens. Mother motions for the child to take the device in her own hand, and speaks as well. The child glances at the device as she takes it, holding it at elbow height. Mom takes a step back and the child again turns to the screen, for the first time not moving toward mom as she steps back. The child gazes at the screen for nearly a full minute. The researcher circles around behind the child, and the child notices out of the corner of her eye

and turns her head to the researcher and looking at her for a moment before turning her body and face back to the screen. However, she glances out of the corner of her eye at the researcher several times and is distracted from the screen for a second. (5:28) The child is still watching the screen and holding the speaker at elbow height. Mother steps toward the child and lifts the speaker to her own ear while still in the child's hand. Child glances away from the screen for a moment and points at it with her other hand. (5:44) The child releases the speaker and mother holds it. Mother motions toward the speaker's wall holster with the speaker and speaks to the child, who turns her eyes to the speaker now. Child takes the speaker in hand and hangs it back on the wall, glancing at the screen one last time as she turns her body away from it to follow her mother's movement toward the opening of the forest themed play area. (5:50) Mother points to the children's entrance and speaks to the child, who peeks inside briefly, smiles, and sits down to remove her shoes. She speaks to mother while doing so. She gets her shoes off independently and hops through the entrance opening. She is sitting just inside turning her head to look all around the space. She pokes her hand back out the hole and smiles at mom, and then at the researcher, who laughs. The child smiles bigger and looks at mom. Child asks/tells mom to come. (6:25) Child crawls across the area and hides behind a giant mushroom prop. Mom crosses over the entrance, pulling open the curtain and peeking inside. The child quickly hides better behind the mushroom, and after a couple moments sticks her head out the other side, looking for/at mom while smiling. While mom takes off her shoes to go inside the child looks at and picks up the stuffed animal figures next to the mushroom. The child walks over to the door where mom is taking off her shoes. The child has the two stuffed animals in her hands. She speaks to mom and mom answers that she is coming. The child quickly runs back to her hiding place with the stuffed animals in her hands. (7:02) Before mom can join her in the play area, the child leaves the stuffed animals and runs out of the children's opening in the wall and stands in front of the screen again. At the same moment mom enters the play area and speaks to the child, who glances toward the voice. She turns her body to reenter the play space, but hesitates, glancing back at the screen again. (7:15) She again moves her body to face the screen directly in front of it. She reaches for the speaker device, but mom says "hoo hoo!" loudly and the child leaves it and runs back into the play space. Mom looks all

around her and touches the different surfaces, feeling the different materials used to construct the play area. Child picks up one of the stuffed animals earlier discarded and hands it to mom, who takes it in two hands. The child picks up the other stuffed animal. (7:32) The child begins speaking to the mom and turns away, towards the opening to leave. Mom starts playing with the stuffed animal, making laughing noises. The child turns back at the sound, and then goes back over to the mushroom she hid behind earlier, bringing the stuffed animal with her. Mom makes the laughing noise again. (8:04) Child notices the 'bouncy rock' within the play area and goes over to stand on it with the stuffed animal in her hand. She hops on top of it and mom makes a "hup" noise in time with the child's hops. The child steps down and tosses the stuffed animal onto the bouncy rock, making a similar sound her mother just made, but for the stuffed animal's hops. The child glances at the screen inside the play area, which is also showing some cartoons. The child drops the stuffed animal and rushes over to the adult-sized door, about to leave the area. Before she exits, she takes a step back and turns to the child-sized opening and exits through that instead. She is smiling. While just outside of the opening she twists her body toward the screen on the outside wall, where she was first watching the cartoons earlier. She watches the screen while on hands and knees. (8:32) After some seconds of watching from hands and knees, the child stands and positions herself directly in front of the screen, reaching for the speaker. She touches it for a moment while eyes are fixated on the screen, but she does not pick the speaker up out of the holster. After a few seconds she moves again toward the child-sized opening to the play area but before entering she turns back to the screen and watched for a second. She is distracted by a deep voice from nearby in the exhibition room and after turning her head and seeing a stranger, she turns back to the entrance and ducks into it. She crawls on top of one of the bouncy stones, stands up, and jumps on it a few times making noises in time with her jumps. Again, she notices the screen within the play area and goes over to it, picks up the earlier discarded stuffed animal, and crouches on the nearest "stone" to watch this screen.

Recording 2:

The child is inside the forest-themed play area. Again, she crawls over to the small door and sticks the top of her body out, twisting to see the screen with

cartoons outside the play area. A stranger walks over to check out the play area and the child ducks back in through the small door. The child has the stuffed animal again and goes to sit on one of the “stones”, bouncing the stuffed animal on the floor. The child stands up, holding the stuffed animal by the ears, she makes the animal hop along the floor while she walks along, singing. Her mother is still inside the play area and the child hops the animal over to mom. (1:15) The child goes a few steps away to get the other stuffed animal and brings it back to mom. Mom and child are speaking to each other during this time. The child turns her attention to the giant mushroom in the play area. Mom is making her stuffed animal talk and walk, but the child is not looking towards that. She is looking at the top of the mushroom. She gets a better grip on her stuffed animal, holding it up as though to show the top of the mushroom to it. She can't quite reach and she turns around to mom and tosses her animal to mom. Mom, in exchange, hands the child the stuffed animal she had. Then they take another turn tossing the stuffed animals back and forth to each other while saying “hup!”. Child walks over to the ‘stone’ and balances on it, pretending to fall. She drops the stuffed animal, glances at the researcher, and exits the area through the small opening. She kneels in front of the screen where the cartoon is still playing, gazing at the screen for several seconds. She pops her top half through the opening again but pauses, comes out, looks at the researcher smiling. When her mother starts to speak to her she goes back into the play area, where mom is kneeling on the floor with one of the stuffed animals. Mom offers one of them to her and the child walks over to the mushroom reaching up to place the animal on top of it, but she can't reach and the animal falls down. The child picks it up onto her shoulders and goes to stand on the rock again. She waves the animal down in front of her, almost swatting mom with its ears. The child walks over to the corner of the area and crouches down, as if hiding from the researcher, who bends down and finds the child peeking at her through the opening. The researcher whispers “Kukku”, and starts playing peek-a-boo with the child while filming. The child is ducking back behind the wall waiting for the researcher to play. The child is smiling. Researcher comes over to the higher opening “window” in the wall and pokes the camera through. The child is smiling and grabs the stuffed animal, blocking the window with it. The researcher removes the camera and the child turns her attention again to the stone on the ground, balancing on it and hopping on and

off of it. (3:48) The child glances to the researcher who can see her through the window. The researcher waves and the child waves back, smiling. After running to the mushroom and stopping to pat her tummy for mom, the child resumes the peek-a-boo game with the researcher, who laughs. The child is hidden from the researcher in the corner, unseen for several seconds. The researcher pokes the camera in through the adult sized door and aims it to the corner. The child is unseen by the camera. Then the child pokes her head into view of the camera with a huge smile. The researcher laughs. The researcher acknowledges that she is maybe not supposed to be playing with her subject. The child hides in the corner again momentarily before poking out of the small entrance, smiling at the researcher, who says "ahaaa!". Upon poking her head out of the opening, the child again notices the cartoon screen and turns her body toward it in order to watch while sticking half way out of the small opening. She is still staring at the screen 13 seconds later when the video recording ends.

Recording 3:

Mother is walking around the exhibit and child is following. Mom is looking at things closely, noticed Lenin's bust and making comments to the researcher. When mom makes a comment to the researcher the child watches the exchange and then looks closely at the item mom is looking at. Mom stands in the area where the Lenin's bust and huge bow is exhibited, picks up the listening device. Child looks at mom and takes a few steps closer, still watching mom carefully. Child edges from mom's side to directly in front her her. Mom is still listening to the device and child is gazing at mom's face. Mom puts the device down and nods her head. Child says something. Mom lifts the device off the hook and holds it to the child's ear while also bending down so that she may listen at the same time. 00:38 Child listens for a moment before leaning away from the receiver and making a waving/blocking gesture with both hands toward the device, rejecting it. Child leaves mom listening and starts skipping around the exhibit, smiling. She skips back over toward the cartoon screen and as she approaches it, changes to walking, gaze toward the screen. She stops in front of it and reaches for the speaker device, but does not pick it up. She is fixated on the screen and her hand is reached out toward the speaker, frozen while she watches for several seconds. Her arm drops to her side again while she watches the screen. 1:12 She turns

away from the screen, smiling, and glances at the researcher before tiptoeing over to where mom is sitting and says “Kukkuu” to mom. Mom makes a startled sound and the child dances away on tiptoes while smiling at the researcher and says “Heehee!”. The camera leaves the child for a moment and mom passes in front of the screen saying “Aww!”. The camera finds the child again who was about to go into the play area but when she heard mom say “Aww”, she turned around halfway through the door and gazed toward the sound of mom’s voice before skipping over to her across the room, where this is a suitcase exhibit with a basket containing different options of things to pack such as play food, toys, etc. Mom had been reacting to the tippy doll that doesn’t fall over. Mom is holding it in her hand when the child reaches her. Mom hands the toy to the child to grips in in both hands, looking for a moment at the suitcase and other toys before turning away from it to look at the rest of the room. Mom says something to the child who turns around and walks back to the suitcase, placing the toy inside it for a moment. Mom says something again and the child picks the toy up again and looks at mom. Mom motions with her hands toward the floor and the child follows that with her gaze and places the toy on the floor. The toy makes a jingle sound and the child takes her hands away from it and knells next to it. Mom takes a step forward and bends down next to the child while speaking. Mom now crouches down and makes a twirling motion above the toy with her index finger which the child follows with her gaze. The mom pushes the top of the toy with her index finger and it wobbles around jingling. The child reaches forward immediately and steadies the toy. Mom says something to the child and pushes the toy again. This time the child watches while the toy rocks back and forth and jingles. The child’s hand hovers above the toy while it rocks and jingles. She starts to grab for it but stops as the toy starts to right itself, the rocks getting smaller and jingling getting faster. She watches as the toy stops rocking, once again upright. She watches the toy still for two or three seconds and when nothing else happens she picks the toy up in one hand and kneels up from her bottom to her knees, scooting toward mom a bit closer, gaze towards the suitcase and then to the toy in her hand. Once immediately next to mom, the child sets the toy down again. She is smiling. She takes her hand away from the toy and keeps it hovering over top of it until the toy stops jingling. She taps the toy gently with one finger but it doesn’t jingle. She picks it an inch off the floor and sets it down quickly, listening

to the jingle it makes. Child leans back on her palms looking up at mom, who is kneeling next to her, gaze toward the toy. Child glances back at the toy and pokes it in the side with her finger and listens to the jingle. Now mom points at the toy and says something to the child, who again pokes the toy slightly. 2:42 Now mom pushes the toy with one finger, holding it, so that its head is parallel to the floor. She is speaking to the child while doing this. She lifts her finger and the toy springs up from the floor, making a lot of noise. The child watches closely until the toy again stops moving and jingling. The child places her hand on the top of the doll's head for a moment, watching it. Then she picks the toy up and places it in the basket on the wall. Mom stands up and takes two steps back, watching the child. The child turns back toward mom as mom speaks to her. Mom turns her gaze toward the table while speaking, and the child climbs down under the table. She peeks out under the table cloth at Mom, who makes a surprised noise. The child jumps out from under the table. She jumps up and down with a smile on her face and speaks to mom. Mom walks around to the side of the table where the table cloth is not hanging so low and bends down to peer under the table while speaking to the child. Child walks around and does exactly the same thing. Now they are both bend over, peering under the table. The child straightens up and walks around to the other side of the table while mom continues looking. Mom says something to the child and crawls down under the table. Child turns back to mom and runs over. The child climbs under the table from the opposite side and they bump into each other. The child climbs over mom's lap to see that mom is looking at some pictures which she found on the ground under the table. Mom sets the pictures down and the child looks away, back to where she crawled in from. She climbs out from under the table and pops up, smiling at the researcher and saying "hup!"! The researcher laughs and says "kukkuu!". The child jumps back down under the table giggling. Mom and child crouch under the table for another moment before both emerge from opposite sides. The child skips a few skips across the room, stopping in front of the same suitcase and toy objects from earlier. The child peers into the empty suitcase before spinning around and facing the other side of the room. She glances at mom once and turns back to the side of the room she hasn't explored yet. She takes some slow steps in that direction. She turns her gaze toward a lit up flamingo lamp, but turns away after an instant and looks at her feet as she walks around in a little circle. When

she faces the table area again she looks up and sees mom has walked away toward the seating area. She smiles at the researcher and hops over toward mom, gazing at the table as she skips past it. Mom says "Hoo hoo! from where she is sitting and the child glances that direction, noticing again the cartoon screen. She hops over to stand in front of it again. She is standing, fixated on the screen for 4 seconds when the video recording ends.

Recording 4:

The child is fixated on the screen where cartoon images are playing, her face about 30cm from the screen. After a full 25 seconds of this, the researcher walks around in order to see the child's face. The child notices the researcher and turns her face towards her. After two seconds the child glances back toward the screen for a moment, before turning toward the small entrance to the forest play area. She crouches down in front of the small entrance, looks at the researcher, smiles, and dives into the room. The researcher laughs. The recording ends.

Recording 5:

The child is standing once again in front of the cartoon screen, facing it head on about 30 cm from it. She stands without moving for 39 seconds, fixated, then glances over her shoulder at her mother and hops back into the play area through the small entrance opening. The recording ends.

Recording 6:

The child is once more standing in front of the screen. Mother and two researchers are seated, in the seating area in front of the play area. No one directs any speech to the child or demands any attention. She doesn't turn around, despite the three adults chatting amongst themselves. The child stares at the screen while holding the speaker device for 1 minute, 40 seconds. She hangs the speaker device back onto the wall and glances at the entrance to the play area. She smiles and ducks through the door to the play area. When she is halfway through the door, she pops back out again, looking up at the screen from a seated position in the doorway. She watches for a few seconds and then looks over at the researchers. She smiles and rolls into the play area through the opening. Thumping about can be heard but the child is unseen by the camera.

Suddenly she reappears in the opening and pops out of the area, turning immediately toward the screen. She watches the screen for 25 seconds before she glances over her shoulder at mom. She turns back to the screen. She is holding the listening device. After half a minute she hangs the device back up and ducks into the play area again. She disappears and several loud thumps are heard. The child shouts and suddenly appears in the entrance hole, peeking behind the artificial tree root and peering at the adults. She is smiling. She says “kukkuu!”. She makes a “come” motion with her hand while peeking through the roots and the researcher who had been recording stands up to join the child while the second researcher takes over recording. The researcher hops around in the space, picking up a stuffed animal and hiding around the artificial mushroom. The researcher makes the stuffed animal do some hopping motions. The child takes two big hops toward the researcher. The recording ends.

5.2.2 Father, son, daughter, and children’s friend

Recording 1:

The recording opens with two siblings and their family friend lying on their stomachs in a row with their heads propped up on the hands, elbows on the floor, watching a cartoon screen. After 45 seconds of watching the screen the younger sibling hears her father’s voice and turns away from the screen, in the direction of his voice. She turns back to the screen. The other two children are very still while they watch and take no visible notice to what’s happening around them. The girl however, is fidgeting and wiggling a bit, and glances to her sides now and then. After 1:20 minutes have passed the children are still staring at the screen. The researcher who is recording asks another adult (who is known to the siblings) to come over and listen to the speaker device in view of the children, to see if they react or change their behavior. The adult does so, but the children seem to take no notice. The adult hangs the device back on the hook and walks away. The older sibling says something to his friend and they all continue to watch the screen. (2:30) The children’s father’s voice can be heard nearby. He is chatting with an acquaintance. The children no longer react in any observable way. Four minutes have passed now of watching the cartoon, and the two younger children (the younger sibling and the friend) are now wiggling more. The

friend lays his head down on the rug and looks at the researcher. He is not smiling. He rests his head for another moment before continuing watching the screen. (4:09) The friend says something to the older sibling, who does not answer anything or turn away from the screen. The friend continues chatting (to the older sibling or to himself) he is rubbing his hands on the carpet and shaking his finger. (5:00) The friend scoots up onto his hands and knees and then sits up. He speaks to the older sibling and turns his body toward the small opening to the forest play area. The older sibling turns his face toward his friend and stretches sideways to peek through the opening into the play area. The friend crawls on all fours right up to the opening and leans in. He sits back and turns to look at the older sibling. The friend says "Come with" in Finnish. The two siblings both scoot up to hands and knees and crawl toward the opening, with the friend leading the way. He looks back to make sure the two siblings are following him. There is already a mother and a toddler (unfamiliar to the trio) playing in the area. The friend is all the way in the play area but the two siblings stop just on the threshold and peer in. The older sibling stops, stands up, and walks over to the cushioned area with the rocket and space themed toys, where his father is chatting with two acquaintances. He kneels down on the cushion. Back at the forest play area the friend has taken off his shoes just inside the entrance hole and set them outside of it. The younger sibling now crawls through the hole, sits, and removes her worn shoes in the same way before continuing into the play area. Inside the area, the friend is hopping from one "stone" cushion to the other, in a frog-style movement. The younger sibling is watching him. Now she walks over to one of the stones and feels it with her foot. She stamps on it with one foot, as if to test it. The friend comes and jumps on and off of the one she was testing. Now she jumps onto and off of it with both feet in the same fashion as the friend, but in a slower movement. The friend jumps over to the corner of the play area where there is another screen mounted on the wall showing nature images. He kneels in front of it for a moment, but then turns around and sees the younger sibling. He stands up and runs over to her. Hopping on the stones along the way. He glances at the toddler playing in the room and she hops back over to the screen kneeling down in front of it for only a second before standing back up and jumping onto the big stone next to it. Now the younger sibling has noticed what he is doing and she follows the same path of stones hopping over to the screen. The friend attempts to jump from the

biggest stone to one near the opposite side of the room, a large distance for him. He jumps but doesn't quite make it, he does a little hop onto the stone he was aiming for. Now the girl stands on the biggest stone and looks toward where the friend is now standing. She does a jump but only makes it about half way to the stone where her friend is now crouching. She takes a few steps toward the small opening and he steps down for the stone, moving in the same direction. The friend peeks out of the larger opening and looks at the researcher who says "hi" and laughs. The boy waves at her with a neutral facial expression. The camera pans over to the older sibling, who is laying on his stomach on the padded "moon surface" exhibit, next to another young visitor, also a family friend. The little girl is playing with a toy rocket while the older boy looks on and his father and the girl's mother or standing next to them chatting. He is playing with a car, and she has a rocket in her hands. (7:00) The camera pans back over to the forest themed play area. The friend is knelt in front of the screen in the corner. The younger sibling comes over and kneels right next to him and turns her face up to the screen in the same way. But the friend leans his body into hers so that she is pushed sideways, away from him. She falls over and makes an exclamation. In the meanwhile, the father has walked over to check on his youngest and the friend. He observes this instance and says the friend's name in a reprimanding tone. He twists his body around to look at the girl's father. Both children are now looking at the girl's father and frowning. They turn back around to continue watching the screen, but the boy leans away from the girl. She discreetly scoots a few centimeters toward him, and he in turn scoots away from her again, both their faces not leaving the screen. The boy starts bouncing his bottom up and down on his feet while kneeling. The girl reaches over and puts her hand on his shoulder. He leans away and then pushes her hand away with his hand. The recording ends.

Recording 2:

The video starts and the younger sibling is in the forest play area with the friend. He tells her "Go there and look" in Finnish. She turns her head away from him. He is crawling around the area on hands and heads. She is upright. She steps onto the small "stone" cushion and hops with both legs off of it. He walks in front of her, looking up at the researcher, who is recording through the window. He

moves out of frame but can be heard saying “ya, hiyaa, yaa” (fighting sort of noises). The younger sibling steps onto the stone the friend has just vacated and looks up at the researcher before hopping off in the direction of the friend’s voice. Recording ends.

Recording 3:

The video starts. The father is now inside the forest themed play area. He points up at the netted ceiling and says “This is [child’s name]”. The children’s friend says “dragon tree” in Finnish, pointing up at the tree branch worked into the netted ceiling of the play area. The father repeats the phrase and sits down against the back wall of the area, near a giant mushroom prop. The father is laughing. His daughter (the younger of the two siblings) is hovering close to her dad and the other child is reaching up to feel the underside of the mushroom cap. The father picks up one of the stuffed animals and says “What is that?”. His daughter reaches out for the stuffed animal and the father gives it to her. At the same time, the friend picks up the other stuffed animal and says “what is dis” English. He holds the stuffed animal in one hand by the ear and lets it hang from his hands. He makes some “daah, doh, ouch” gibberish noises as he repeatedly drops and picks up the stuffed animal in front of himself. Meanwhile, the little girl is holding the other stuffed animal with both hands, holding in out in front of her body and having a thorough look at it. The father says “wait, let me see”, to the boy, who drops the stuffed animal (the rabbit character from the Mole cartoon) on the father’s feet, which are stretched out in front of himself. The father picks up the stuffed animal and checks it over. The father says “You know I think this is [someone else’s name]”. The boy says “no it’s [his own name].” The dad takes the animal and says, “okok let me see”, holding the animal up next to the boy. “Let’s compare” he says, checking the height difference between the animal and child. “Well, he has the same ears as you, and the same eyes as you, so yeah, I think this is [child’s name]!” The dad presses the animal to the boy’s torso and the boy takes the animal by hugging it, at the same time being pulled into the dad’s lap to sit on his knee. The daughter is standing nearby hugging the other stuffed animal (the Mole character). The boy struggles to get off of the dad’s lap and stumbles away from him while holding the rabbit. The daughter walks over to her father with the mole animal. He says to her in a much higher voice than he used when

addressing the little boy “what is this, mamma?”. Her response cannot be heard in the recording. “It’s very small?” the dad says. She makes a motion to sit on her dad’s lap and he helps her climb onto his legs and snuggle in. She is kneeling on his lap and he is snuggling her. The two talk together but it is too quiet to be deciphered in the recording. While this is happening, the little boy is jumping on and off of the cushioned “rocks” in the play area while making little shouts and exclamations. He is holding the stuffed rabbit under one armpit. He sits down on one of the rocks in the corner and looks toward father and daughter. The daughter slides or tumbles off of dad’s lap. She carries the mole animal to the nearest “stone” and lays him on it. She jumps up with it in her hands and continues jumps several times, moving toward the mushroom. The boy is making his rabbit animal jump and is making jumping noises “boing boing” in time with the jumps. The dad reaches up to touch the underside of the mushroom. The daughter notices this and goes to stand under the mushroom, looking straight up in order to observe the dad’s hand. The boy also drops his rabbit animal on the ground and walks over, gazing at the dad’s hand which is now touching the mushroom. The dad withdraws his hand and the boy reaches up to feel. He feels the motion of the cap of the mushroom and pushes it down on one side to test how it moves. The cap swings about on the foot of the mushroom. The boy starts to turn the cap around, realizing it can spin upon the foot. The boy says something to the dad, but he is now speaking on the phone and does not answer. The boy turns back to the mushrooms and continues to experiment the ways it can move. The girl is standing off to the side and is holding the mole toy. She looks down at it in her hands, occasionally looking over at the mushroom or her father. (1:56) The boy skips over to where the rabbit toy is lying on the ground and picks it up. The girl dances around with the mole toy. The boy reaches the screen in the corner again, with the rabbit in his arms. He crouches down in front of the screen, with his face turned toward it. He kneels in front of the screen and touches it with his pointer finger. He moves his finger around on the screen, in a similar way one would use a touch screen device. The father puts the phone away and leans over to see what the boy is doing. The little girl is dancing, jumping, and spinning with the mole toy held out in front of her like a dance partner. (2:20) The father is still turned toward the little boy when he lowers his face toward the floor and slaps the floor twice with his hand while beginning to laugh at the boy trying to use the

screen as a touchscreen. The little girl lays down on the “stone” as if it were a pillow. The dad crawls over to her and tickles her a bit while talking to her and leaning down to give her a kiss. Dad gives her a pat on the back as both stand up, dad walks out of frame and girl twirls around a bit with the stuffed animal. (2:45) Dad appears in frame again as he crouches in the corner behind and under the mushroom prop. He addresses the girl, she notices him and stops dancing to walk toward him with the animal still in her hands. When she gets a bit closer she starts jumping and spinning at the same time. She is smiling. The top of the mushroom starts spinning as well, as the dad reaches up and turns it. The girl stops, looks up at the spinning mushroom top, and continues jump-spinning with the mole animal in her hands. (3:02) The mushroom stops spinning but the girl continues. She is holding the stuffed animal away from her body in her two hands while spinning. She starts to wobble from prolonged spinning and finally topples over onto her bottom, dizzy. The mole flies out of her hands, but she sloppily crawls over to it and grabs it up again, hugging it as she recovers her equilibrium. (3:21) She walks over to the screen in the corner and kneels down in front of it. She reaches out with her pointer finger and starts to “swipe” the screen with it. She repeats this swiping motion with her finger for several seconds before putting her hand back in her lap (she is holding the mole animal in her other arm) and watching the screen for several more seconds. She then stands up and turns away from the screen, walks over to the center of the room, and continues her spinning/dancing with the mole animal. She shouts “weeeeeee” as she jumps and spins. Again she gets too dizzy and drops the toy while she sits down. She rubs one of the soles of her feet as if she hurt herself, but after a couple of seconds stands up again and grabs the mole toy. She wacks the toy down onto one of the “rocks” and then tosses the toy across the room. The camera pans over to the space themed cushioned play area where the older sibling and his friend are now playing. Both boys are seated, each holding a toy in both hands with heads bent down concentrating on manipulating the toy they hold. The older boy has his back half turned to the younger boy. As the younger boy looks up to the display and notices an astronaut toy which is magnetically stuck to the wall. He reaches for it but the researcher who is recording is approached by another small child who is being observed by my co-researcher. The child holds out the truck toy, demonstrating how the windscreen can move up and down. The

researcher recording the video comments on the truck and how it moves. The researcher holds the truck while the child flips the windscreen open and shut. The researcher goes to try the same movement in turn while the child holds the truck. The recording ends.

Recording 4:

The video starts as father and an acquaintance are chatting in the foreground while his little girl is checking some postcards that are spread out on the low table in front of the adults' seating area near the forest play area. She turns around and faces the camera without making eye contact with a postcard in her hand. She walks away from the table while waving the postcard in the air like a paper fan. She waves the card as she walks over to her father and starts jumping up and down next to him while waving the card. She stops when he glances down at her before he is distracted by the older son calling "daddy1". The son walks over to the father and daughter holding a Geo-mag shape he has created with the pieces in the space themed cushioned play area. He holds the creation out to his father with one hand. Father takes it and says "thanks you" turning around and walking away with the son's creation. The boy says "Nooooo!" and follows after dad, reaching for the toy and trying to stop him getting away. The dad says "thank you [child's name]" and the boy is saying "just give it, just give it". The daughter also follows after dad trying to reach up for the toy. Dad hands the toy back to the son who says "precious!". The daughter is still reaching for the toy now that it is in her brother's hands, but he stops her saying "no, what are you doing!?" Father takes the daughter by the hands and says "no he wants to play it now". She makes a disappointed whining sound but drops her hands, still looking at the toy. Dad comforts her by picking her up and spinning her about. He holds her like a baby in his arms and speaks to her in a low voice, explaining to her why she can't try to grab her brother's toy. The brother has gone back to the cushioned area to continue playing with what he has made. His friend is also on the cushioned area playing with another toy. (1:05) Father sets down the daughter and both walk over to where the older brother is sitting and playing. Dad says "I don't understand how to get all the magnets to yourself." The son responds by handing a couple building bit to his sister. The recording ends.

Recording 5:

Now the recording is being taken inside forest themed play area. The person recording is inside the play area with the three children: the siblings and their friend. The two boys are looking up at the screen ceiling at the toy astronaut which is caught on a wire and the children cannot reach it. The older boy is jumping up to try to reach it. His friend says in Finnish, “jump from here” and the older boy tries it but still cannot reach the toy. The recording ends.

Recording 6:

The video starts. The friend of the two siblings is looking at the person holding the camera and frowning. The older boy is standing next to him and says something while he tosses the astronaut toy up in the air and catches it again. The younger boy says he doesn't want to be there anymore in Finnish. The little girl is touching and tapping the touch screen display nearby and looks up at the boy when he says this. She then turns to look at the camera person, possibly waiting for some reaction from that person. After a second she turns back to the touch screen and continues tapping the different buttons on screen. It is the kaleidoscope display and she is watching the swirling colors. The younger boy walks over to watch the screen. They stand next to each other watching the swirling colors. She touches the screen with the index fingers of both hands and he keeps his hands at his sides. (0:28) The older son steps in front of the camera speaking to the camera person (his father) to look at how he can throw the astronaut up and catch it. “Did you see that?” he asks Dad, who agrees by saying “mhmm”. The son steps out of frame again and we see the daughter is alone now at the kaleidoscope display, still trying to manipulate the colors with her finger. A whiney voice is heard, saying “I want to leave” in Finnish and the girl turns around to look at the speaker momentarily before turning back to the screen in front of her. Her hands continue tapping the screen as she looks over each shoulder in turn at her surroundings. She turns back to face the display. The recording ends.

5.2.3 Mother and Daughter 2

A 3-year-old child, mother is Filipina.

Recording 1 – 10:41 minutes

Mother and a child are entering the exhibition. Child walks next to mother while mother drives the stroller. Then the researcher approaches saying where they can park the stroller. Meanwhile child looks around while walking next to her mother. The mother turns around and takes the stroller to the shown place. The child gives uncertain look to the camera and tries to leave through the door. Mother calls her back and the child follows and walks behind her mother. The first thing they stop at is the glass showcase with dolls. When mother stops in front of the showcase, child tries to reach and hold her hand, but the mother stretches her arm towards the blue toy inside the glass box. And child looks in that direction and then quickly turns her head towards mother and looks at her while mother is looking at the dolls in the showcase. Then the child turns back and looks at the researcher with the camera and quickly turns towards mother and goes really close to her. Mother excitedly points on the dolls and child looks at the direction mother is showing and then she gives mother a hug and looks at the camera through mother's shoulder, her face looks uncertain. Mother gives her hug and drags her in her lap a little bit to the center while squatting down and continues pointing herself towards the dolls while holding the child in her lap. Mother shows and explains her something in their language while tapping and stroking on her belly, Child starts showing and pointing to the dolls as well. They take turns to point at the dolls and mother keeps explaining something. Then other visitors approach the same showcase, they stand up, child holds on mother's hand and drags her towards herself. The child looks at the strangers and follows the little child with her looks. Then they walk to the other parts of the exhibition while holding hands. They approach space designed area the child releases mother's hand and starts checking the toys laying around that area. She stops for a moment gives a quick look at the passengers and then she starts playing with a space shuttle by trying to open its doors. She looks at the toy from different sides, tries its doors, Mother shows hand movement that the object needs to be driven to and fro. Child looks at the toy while mother is explaining something and then gives her mother quick smile and leans towards the other toy-rocket. She starts watching at the toy from every angle, meanwhile the noise is distracting her and she stops and looks around. Then she continues playing with the toy and mother explains flying movement and imitating noise of the flying object that the object

should fly up. Child reluctantly makes movement upwards, but then starts driving the rocket on the surface.

Then she takes plane in one hand and shuttle in another hand and checks if the plane has doors to open. Then goes back to the shuttle and opens and shuts the doors several times. Then she takes the plane again this time with both hands trying to open the doors, but she does not manage it and then she goes back to the shuttle and opens the doors. (3.02-14)

Then she realizes the wheels of the shuttle and drives it back. She takes the plane and stretches her hand towards her mother. Mother mimics flying with her hand. Child moves back and drives the plane through the pit. Meanwhile mother keeps explaining that object needs to fly. The child ascends the plane to eye level mimics the flying movement, then starts exploring the object from every side, and keeps driving it. Then she takes the rocket

And makes the rocket fly. After a short time, she takes the plane drives on her leg and then makes it fly. Later child takes turn tapping on the doors of the shuttle, taking the rocket and making it fly, and flying the plane in her other hand. Each time child makes plane and the rocket fly she gets positive affirmation from mother like; nodding head and uhm sounds.

Then mother points to the plane in child's hand shows something, It looks like mother is explaining the wings, however child notices the wheels of the plane and starts driving the plane, first on her lap, to feel the movement and then through the bumpy surface and mothers keeps explaining with hand movements and mimicking the plane sound that the object needs to fly.

Then mother takes the rocket places it upright direction and shows how rocket launches to fly. Child seems to be interested in the shuttle now. She drives the shuttle and the plane towards each other, then makes both objects to fly. Meanwhile mother stands up slowly and just observes what child will do next. Then child replaces the shuttle on the soft surface and takes the rocket and glides it on the bumpy surface. She makes forward and backward moves with the rocket in her hand, also watches towards the camera first a little hesitant, then smiles, mother approaches the child and starts explaining with hand move and the sound that the rocket needs to move upwards and child repeat after mother. Mother gives positive "Uhm" and nodes her head then the child hands the rocket to mother and takes the shuttle, mother shows with hand movement that shuttle

need to be driven and gives the child time to explore the toy. Child closes the open door of the truck and opens it back. She keeps playing with the truck while mother stands up and observes the child. The child takes the plane and drives it on the surface and this time bends down in very closely to the level of surface to watch how the plane moves. When the plane goes close to the rocket the child takes the rocket and drives them both on different angles of the bumpy surface, this time she is looking and smiling at her mother and mother explains something in their language and shows with hand movement that the rocket goes up and the child moves the rocket upwards. The child keeps playing with the toys taking rocket, plane and the truck in turns and drives them on the bumpy surface. Meanwhile mother speaks to the researcher, child reacts to the voice by giving a short look around, then gets back to the game. Mother approaches to the child, kneels and starts explaining in their language and taps to the rocket and shows upwards with her hand, the child glides the rocket back and forth and goes back to play with the door of the truck, mother touches the door of the truck, explains something by making up and down signs with her hands and nodding her head and positively affirms the child while she is repeating opening and closing the door of the truck. Child keeps playing with the plane in her hand, but she does not look at her mother, she looks opposite direction from mother. There is (thud) background noise, she looks smiles shortly and gets back to playing with her plane. She drives the plane and makes it fly in the end of the lane; she looks towards the sound (People chatter). Then she keeps driving the plane on the bumpy surface, then stretches her legs and drives the plane on her legs. Mother keeps explaining by making noise and showing with hands flying movement of the object. The child plays with the doors of the plane on the side, mother sit kneeling and observing the child, then the child drives the plane on the surface, while holding the rocket on the other hand mother stands up and shows upwards with hands and child launches the rocket in upward position, mother holds the rocket with both hands and shows how to launch it, child looks at her mother and then looks at the other visitors passing by. In the end she is showing upwards direction with her has and ascends and descends them for few times.

Recording 2 – 15:21 minutes

Child continues playing in the same space designed area, she has a plane in her hands and she adjusts herself in her spot to be closer to the truck toy, she touches the toy with fingers and opens and shuts the door, on the other hand she has a plane flies it upright direction, mother shows with hands to fly it in flat position. She does the movement, but at the same time she listens to the voices and looks in the other direction in her front (There is a camera) and looks to the sides and then looks back at mother and gives her a smile, drives the plane on the surface, on her one leg, then adjusts the other leg to come closer and drives the plane over it, drives the plane over the surface makes it fly, she bring the plane back closer to the truck and drives it back and forth rapidly next to the truck (The noise the wheels make is heard in the footage) and opens and closes the side doors of the truck with another hand she drives the truck towards the end of the surface and Mother stands up and observes, the child drives the truck and in the end of the bumpy surface makes the truck fly as well. Then she brings the truck towards her knee, opens the door few times, looks at her mother, the mother leaves the spot and walks away from the child. While playing the child looks for her mother, mother comes back to her eye sight and she bends her head down and continues playing with the truck. She drives the truck and then the plane on the different angles of the surface. Mother is not standing by her. Child keeps looking around. There are some chatter sounds, and jingling, child lifts her head listens and moves her body towards and backwards and goes back to playing with the truck, she brings it to the ravine and then takes it back to her knee level. Then the mother starts calling her name few times, child puts the toy next to her, responds her mother, but doe does not stand up from her spot. She wiggles her right leg, looks around and goes back playing with the truck and she points to the truck. Mother says her something in an appealing voice. Mother stands in front of the other exhibit area, but on the eyesight of the child, child is looking at her and pointing towards mother's direction. The child has the plane in her hand and playing with the truck with the other. Mother saying something to her in an excited voice. Child responds something in their language and keeps playing with the truck. She drives the truck from one end to another end. Mother walks towards her and shows something in the other side of the exhibition and calls her name, child leaves the truck and stands up and goes to her mother, holds her hands and they walk to the other part of the exhibition. They stop at the board with cards,

mother bends towards the child explains something. First child looks at the direction mother points, then she notices other things around and looks at the different direction while standing next to the mother. They walk together, child looks back towards the researcher who is recording. Child is showing a big bow, mother exclaims "WOW" with excitement, they look up, then mother shows the sign on the floor. Child goes towards it and stand on it and looks up towards the bow. Then she turns around and does not notice her mother and bumps into her mother, they both laugh and go to the other side. The child notices the screen points to it and tries to reach mother's hands asking upwards, mother shows the picture above the screen and she says something and the child laughs and then the mother wiggles her body from up to down and makes funny noises with her mouth, child repeats the same movement after her and they both laugh. Child looks back at the researcher and then looks back at the screen mom laughs and they start moving from the spot. Child notices Lenin's billboard points at the photos of Lenin, mother approaches to her and child appears to be counting the heads of Lenin, mother affirms with "Aha" each time. Then mother starts speaking in their language and point at the board, she sounds like asking a question. The child at the photos and then slides her hands and then they move to the other side of the exhibition. The child looks at the photo, turns around and gives hug to her mother. Mother hugs her and lifts her. Then she puts the child down, then she points at the photo and the child starts looking at it carefully, bending her body towards the photo. Mother approaches the child from behind, bends to her ears and says "Hello". Child turns around at the glass showcase with dolls inside. She moves her finger in the air, mother bends down, kneels, point to one of the dolls and says something and the child points and responds back, then she turns around and hugs her mother. They hug each other and look at the photo in front of them, then the child turns back to the glass showcase and takes mothers' hand and points to one of the dolls. Mother is constantly speaking to her with a soft voice. Then the child notices the space designed area again. She takes the plane drives it on the surface and then takes it in her hands and walks to the other parts of the exhibition. Mother objects and shows that it needs to be taken back. the child doesn't take it back and approaches another showcase in the opposite direction of the space area. She looks through the glass, mother kneels and asks her questions and the child responds. Then she exclaims loudly, turns around to

her mother, smiles, mother nods her head and then the child walks other direction, she stops at the flamingo stand, mother point to it, the child looks at mother, laughs at her and then smiles, she strokes the flamingo's neck, bends down checks the legs, mother is nodding her head and affirms with sounds, child strokes the flamingo again, bends down check the stand and touches the rocks, stands up again and strokes the flamingo, mother says something, the child looks back at the researcher, then she hesitantly strokes her own neck, mother imitates the flamingo sound and the child strokes the flamingo. Then she grabs the neck of the flamingo mother stops her with hand movement and saying "Obobobo". Child looks at the plane in her hands and they move towards another object-suitcase with toys inside. Child looks inside, mother points on something and explains in their language, child makes confirmative sound and then she notices the shelf with "Vanka-stanka and Dog", She points at the dog, mother approaches and they touch it slightly, mother explains something in soft voice. Then the child touches the vanka-stanka toy and jiggles, she attempts to take it in her hands, mother stops her and puts he toy back, and with both hand movement shows down, and they make the toy to sway from side to side, child looks down, rolls her lips, fidgets with her left foot and looks at the researcher. Then she looks back at the direction of the jiggly sound, looks down and quickly looks back at the shelf after mother points and tells her something in soft voice. She shows to the green plastic toy inside the suitcase, she lifts it a little bit, mother says its name, then she looks at the plane in her hand, tries to give it to her mother, mother explains with hand sign and verbal explanation where she should put it, She runs towards the space designed area and throws the plane. Mother comes back and checks from the corner and positively affirms with thumb up and they walk back towards the suitcase together. Child approaches the suitcase very quickly and bends down and lifts the apple from inside. Mother bends down behind the child and talks to her in calm voice. The mother points to the other objects inside the suitcase, but child is not looking, she is hesitantly looking at the researcher. Glides her foot and then turns back to the suitcase and starts checking the toys inside. Minute 8

She lifts every item one by one shows to the mother and mother tells their names. Now they speak English. After she shows all the toys she touches the Nevalyashka toy again and it jiggles. Then she turns back and looks at the

researcher with a worried look. Then turns around, scratches under neck and looks around, she turns back grabs mother's hand and drags her to another direction. They come to the flamingo again. She starts stroking it from the side. Gives it a little shake and look at the researcher. She strokes the flamingo, mother positively nods her head and she turns back and goes to the suitcase, touches all the toys by lifting, one by one, and mother saying their names again, then mother points to the other items and asks her. The child finds the flashlight, show is to the mother, the mother turns the light on and gives it to the child, child directs the light to the further distance, then turns back quickly to the researcher. Mother points to the texts on the wall. Then the child puts her hand in front of the light and starts wiggling it. Then mother places her hand in front of the wall and makes movements, while child directs the light towards mother's hand. Then she point with light to some other texts, inside the suitcase, mother approaches closer and plays her hands in front of the child, but child is looking at the orange toy and checking other toy. She lifts the toy pear, shakes it and brings it to her ears. Then she gives makes a sudden movement taking orange towards her mom and back to the suitcase and then directing light to the other items inside the suitcase and looking at her mother and mother nodding her positively. Then she turns back to the suitcase and turns the light back to mother's face and starts laughing and mother covering her face and smiling at her.

Then child directs the flashlight at different angles of the wall, mother gets up and walks away. The child points it to the empty wall, to the pictures and to the texts, then mother points at the toys in the shelf. Mother gives excited sound and they look at the shadows together. The child looks at the mother and she nods to her. Then the child directs the light back to the suitcase. Mother puts her hands in front of the light and makes some movements imitating a dog and makes barking sound, child looks at mother and laughs loudly. Then the child directs light towards , her mother's face and then back to hands, towards the toys on the shelf, inside the suitcase, towards the camera and gives a researcher a shy smile, then she quickly turns the light towards the suitcase. Then she directs the light to the shelf, meanwhile the researcher coughs and the child turns back at her and smiles. And then she directs the light back it the researcher one more time and then turns the flashlight off, and then the child starts showing the items inside the suitcase to the camera first she takes orange, then she takes the flashlight

again turns it on. Points the light to different points, mother says "Flashlight", then she directs the light to mother's face. Mother starts doing "Peekaboo". The child smiles and directs the light to different points of the room, to the far, to the floor and far again and then to mother's place and smiles, then she chases her mom with the light and then she turns the light back towards the toys on the shelf, lighting at them from the other angle. Then she lights the toys first orange, then apple and then the bottom of the suitcase and then toy fruits again and then to her mother's face and laughing. Then she directs the light up and looks at it, mother looks together with her and talks softly. Then the mother starts walking back and forth and the child chases mother with light. Then she turns the light to the other parts of the room again and directs it towards the suitcase and takes the fruit in her hand and looks at it with light. Mother points to apple and the child takes the apple in her hand and directs light with other. Then she takes another toys and does the same.

5.2.4 Mother, Father, and Daughter

A 2-year-old child visiting the museum with both parents. Mother is Azerbaijani and dad is Finnish.

The recording starts with father following the child and child stops at the suitcase with fruits, Mother is on the other side of the wall and was not on the sight. While the child is checking the toys inside the suitcase, mother notices Nevalyashka toy on the shelf and comes towards it by pointing to it and tells something to her spouse. The mother checks other parts of the exhibition, looking up and father follows her. Child is left by herself at the suitcase. She is taking plastic apple in her hand, looks at it and attempts to take a bite, then she gives a quick look at the parents standing on the right side and takes the toy orange on the other hand, drops the apple in the suitcase, holds the orange with both hands and taps on it, then drops it back into the suitcase. Looks carefully inside the suitcase, checks for the toys, babbles, uses high pitch baby talk, looks at side, and father approaches to her. She finds the yellow car, takes it out of the suitcase says "Katso (look)" puts it on the floor and starts driving back and forth. She takes crawls down, father kneels down as well, child first lets the car go some distance, then approaches to the car, tries driving on the floor and lifts the car to check the

wheels, She repeats it 4 times, then drives the wheels faster and faster few times. Father is sitting behind and observing her. The child is sitting with her back to father. Then she turns around, notices the camera, looks at the camera (researcher taking video) for a few seconds, while driving the car, then hides behind dad, and peaks again looks at the camera, gives the car to dad, heads to suitcase and starts searching. She picks the apple, imitates biting it and gives a gaze to dad. She looks at the apple, then looks at dad and drops it back to the suitcase. Dad stands up and puts the car back into the suitcase. She takes the orange taps at it, then notices pear looks at it, puts the orange back. Takes the apple on the other hand, gives the pear to the father, while holding an apple on the other hand. Looks at the researcher. Then imitates eating apple while looking at the shelf with a pig and Nevalyashka. Father imitates eating the pear as well. Then she approaches to the shelf points at Nevalyashka touches it through wires and it jingles slightly, Father approaches from behind and grabs the toy from head and it sways from side to side and jingles stronger. The child takes step back and then approaches the toy and tries to jingle it again. She is having apple toy in her hand, she looks at it, comes closer to the shelf and touches the Nevalyashka toy again. Then she grabs it from the head and takes it out of the shelf. Mother approaches them. Father stretches his hand and the child shakes the toy close to his hand. Mother comes takes the toy from her hand, puts it inside the suitcase and explains verbally how to play with the toy and gives slight push on the head of the toy and it jingles. The child takes the toy from head and shakes it in her hand, takes the car on the other hand, puts it down and starts driving back and forth. Mother says "Oho". The child leaves the car on the floor stands up, shakes the Nevalyashka toy, takes it from hands, turns around, checks back side, shakes close to her ears and bends towards it. She takes the pig toy on the other hand gives it to mother. And mother puts it inside the suitcase. (2.36) She shakes the toy for a while, stretches it towards her mother, then suddenly runs towards the flamingo lamp, mother follows her. She touches its neck, says something to her mother excitedly, mother bends on her eye level, and then she starts shaking the jiggly Nevalyashka toy. Turns and looks around while, shaking, it notices something on the wall, points it to her mother, hands the jiggly toy to mother and runs towards the object by pointing her index finger. She shows the photo on the wall, mother approaches to explain, she goes back to the flamingo and touches

its neck, gives it a shake and runs towards the suitcase. Approaches to the suitcase, looks inside, while mother puts the jiggly toy back to the shelf, the child takes the plastic radish from the suitcase and imitates eating it while Nevalyashka jiggles in the background, The child puts the radish back and approaches to the shelf with Nevalyashka, stretches to it, grabs from the head and gives it a shake, then turns around and looks around as if searching for something and meantime shakes the toy. Looks at mother and mother wiggle her body to the rhythm of the jiggles. She turns around and sees father and runs towards him and hands the toy to him. He turns the toy side to side in his hands, explores it, while the child turns around and goes back to the suitcase, looks inside, grabs the car and starts driving it on the floor. She pushes it farther towards her father and sits watching the car moving. While in background both parents wow excitingly Then approaches it and drives it towards the installation of white bricks, which have loudspeakers. She notices something there, watches for a few seconds and turns back and goes around the father and approaches space designed part of the exhibition, she gives a quick look and goes towards the entrance door while balancing on one foot then another, father follows her and child's mother is there, she directs her back to the exhibition site and child squats down and starts driving the car, then stands up looks at mother and they walk back to the space designed area. The child puts the yellow car on the floor.

She grabs the rocket; mother imitates the whoosh sound and says what it is. Child looks at it then grabs truck gives it a quick look, puts it down and then takes the plane. While looking at the plane, mother shows her pieces on the wall. She reaches them, touches yellow pieces, then blue and rips blue one off the wall and sticks it below the yellow and then rubs it against the wall. Looks up, hands the blue piece to her mother, she puts that on the wall. This time 2 children approach the same area of about 10 and 2 years old. The older child has a racing car in his hand and another child is holding a yellow toy car. The child with an astronaut in his hand, throws it at the wall and the toy sticks to the magnetic wall and the older child starts driving that on the wall with imitation of the car racing sound. Lila stops her game, peaks behind the child and follows both children with her eyes. Then Lila looks at her mother then at the camera and then gets back to assembling the puzzles on the wall. Meanwhile the older child's parent approaches him and explains something and they leave the area. Seeing them

leaving Lila leans towards the spot where the boy was playing scratches her eye with the back of her hand while she is holding a plane toy in her hand, takes the rocket, looks at the camera and around her and notices the astronaut toy, put the rocket back and stretches towards the astronaut toy on the wall, takes it in her hand examines it by looking at it from many sides, sticks it back on the wall tries to slide it on the wall, looks around and calls "Äiti" and her mother responds back. Then Lila gets back assembling the puzzles on the wall. Then stops and starts examining the plane toy in her hand. Puts it back, stretches to the puzzles and looks at the camera. Tries to put the pieces together, and then turns around and stretches towards her mother. Mother comes and shows the other pieces on the wall. The child follows her mother while she is showing how to put the puzzles together. Lila also contributes putting puzzles together with mother and mother say "Uhm". Then the child gets distracted by the noise of children playing on the other side and stops doing the puzzles and stares towards the sound for a while. Mother notices it, steps back and lets the child watch. And after a short time, Lila notices a piece of puzzle and shows it to mother and puts it together with the rest of installation. Then she excitedly stretches to the other pieces of the puzzles on the wall, plays on her own, but suddenly hears a loud noise behind her and turns towards the sound. Looks at that side for a while and carries on playing with the puzzles. Meanwhile father shows up in the camera sight and Lila notices her father. Runs towards him and notices the glass showcase with dolls, stretches and touches the top of the showcase. Taps at it a few times. The mother shows the small doll by pointing at it on the corner and she comes to the direction mother shows. She looks at it and point with her finger and then walks around the showcase by pointing at all the dolls. Then she runs around towards the other sides of the exhibition and seeing the researcher following her with camera, looks at the camera and runs away. She stops at the touch screen , swings at the table. Then mother goes to the other side where Lenin's bust and huge bow is exhibited and calls her to follow. Child runs towards the direction mother calls her. The child notices the big bow hanging from the ceiling and stretches to touch it. Mother is standing with her back to the Lenin's bust in front of the bow. Mother calls her daughter to see the photos of the bows. First she runs to the other glass showcase and taps on it, but mother insists and makes hand movements and keeps calling her. And when child finally approaches mother. Mother shows the

photos and point to the gigantic bow. Child touches photos and the other materials hanging from the wall. Then she comes back to the touchscreen showing kaleidoscope and looks at the researcher and says “Kato” and I say “Joo” confirming that I am watching and Lila keeps tapping on the screen. Mother comes and explains what is happening on the screen, the child keeps tapping at it and then runs away. She notices the table installation and runs under it. (PS.I say yes, since it was personally interesting to me, whether children play there or not) She sees the pieces of puzzle and calls for her mom. The mother comes and bends down and asks “If she can come in” The child nods and the mother enters the under table area. The child lays down on the pillows. Mother rearranges the puzzles pieces thrown there and goes to lay down next to Lila. Lila lays on her tummy and watches the museum space through the small niche left after the table cloths and mother point at me to film her from the other side. I go and lift the corner of the tablecloth and the child is sitting and playing with the puzzle. Child gives look at the camera and around the museum and then leaves the area, runs towards the billboard with Lenin’s photos and touches them. I ask “Look how many photos of Lenin we have there?” She ignores the question and runs back to the table and gets under it, since mother is still there laying down on the pillow. Lila crawls and leaves the area and calls her mom to follow her. Mother says something in Azeri (Mom will come from this side) and the child points at the table by saying some words in Finnish. When she sees her mother she runs towards her and runs under the table and leaves from the tablecloths’ side. Mother says “Kukku” . Lila explains to her mother coming from under the table and heads towards the flamingo lamp, touches it, shakes it and then turns around and looks at her mother and turns around and goes back to the suitcase, looks inside it and approaches the shelf and stretches to the Vanka-Stanka toy. Grabs it from the head and takes it to her mother. Mother explains how to play with it. Shows with her hands that they need to put the toy on the floor and pushes the toy from the head, while child stands and observes her mother. The toys starts swaying from one side to another by making jiggly noise. Then child turns back and runs towards the suitcase looks inside and then takes the pig toy and brings it to her mother and then goes back to search for something else inside the suitcase. Brings some object to her mother. Mother tries to understand what it is, looks at it carefully and when the object is in her hand mother makes pulling movement

with her hand. Then child runs towards the suitcase and gets the second piece. And gives it to mom. She tries to pull it but child objects and runs away.

13.45. The child runs into the forest installation area. Another child follows her. I shout behind "Kengat pois-shoes off" in Finnish. She is under the big mushroom, first Lila notices me filming her and then shouts for her mother. Then she tries to jumps and move, but looks at the door and shouts "aiti" and then looks at the camera. Then she runs to the exit of the area and shouts for "Aiti", She finds her mother and asks her to come "Tule tanne" and when she tries to enter the area through the lower entrance she bumps her head, but only rubs her head when she is inside and looks towards the mother's side. Mother calls her out and they take her shoes off toher with a father. When mother and the daughter try to enter the area, the child notices the screen and points at the mole cartoon. Mother says Mole in azeri. Looking at the screen she backs up and sits on the carpet watching the cartoon. Mother leaves the entrance and goes back while child watches the cartoon. Then mother points at the audio device and explains to listen through that. Lila stands up approaches her mother, takes the devices in her hands and mother says "to put it in the ear" she does as mother says. Then mother asks "Do you hear?" Child says nothing, suddenly the device falls from hands, she picks it up and put in her ear and move bit closer to the screen. While Lila is watching the cartoon, mother explains the story behind the photo to someone. (outside of the camera sight) This time child turns around and tries to walk with the device on her ear, but the cable does not let her move long enough. Then mother asks "If she wants to see the red mushroom?" The child puts the device on the floor and crawls into the forest installation. Mother follows her there. The child starts jumping in the installed rocks and then runs back to the screen takes the device independently and puts it in her ear. Watches for a while, tries to put the device nicely back into its place. Mother tries to call her back to the area saying "There is a bunny here." and the dad says "are you going to your mom?' She sways a little bit in her place, looks around tries to run with device in her hand, but dad stretches his hands to take the device from her. She gives it to him and when she tries to crawl inside. Dad reminds to careful and she carefully bends her head inside and enters the forest area. She runs straight to the bunny, pick it up and goes towards mother. Mother says "Bunny.' When Lila a tries to give the bunny to her mom, she gives a look at the camera, Turns back moving

to the back of the room, but then turns around and leaves the space, takes the device and puts it independently to her ear tires to put it back into its place, but then notices something and keeps watching the cartoon.