

PEER CONTACT OF A CHILD WITH CONGENITAL DEAFBLINDNESS

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TABLE OF CONTENTS

<i>Table of contents</i>	2
<i>Preface</i>	4
<i>Abstract</i>	6
<i>Introduction</i>	7
<i>1. Literature study</i>	9
<i>1.1 Purpose</i>	9
<i>1.2 Method of the literature study</i>	9
<i>1.3 Framework</i>	10
<i>1.4. Results of peer contact of typical children</i>	11
<i>1.4.1 Peers as powerful agents</i>	11
<i>1.4.2 Peer contact as an important source of emotional well-being</i>	12
<i>1.4.3 Origins of peer relationship skills</i>	14
<i>1.4.4 Siblings as a special kind of peer</i>	16
<i>1.4.5 Understanding peers</i>	17
<i>1.4.6 Summary</i>	18
<i>1.5. Results of peer contact of atypical children</i>	19
<i>1.5.1 Peers as powerful agents</i>	19
<i>1.5.2 Peer contact as an important source of emotional well-being</i>	20
<i>1.5.3 Origins of peer relationship skills</i>	20
<i>1.5.4 Siblings as a special kind of peer</i>	22
<i>1.5.5 Understanding peers</i>	23
<i>1.5.6 Summary</i>	24
<i>2. Case study</i>	25
<i>2.1. Method of the case study</i>	25
<i>2.1.1 Participant, settings and procedure</i>	26
<i>2.2. Results of the case study</i>	27
<i>2.2.1 Peers as powerful agents</i>	27
<i>2.2.2 Peer contact as an important source of emotional well-being</i>	30
<i>2.2.3 Origins of peer relationship skills</i>	32



2.2.4 Siblings as a special kind of peer	33
2.2.5 Understanding peers	34
2.2.6 Summary	35
2.3 Results related to people with CDB in general	36
3. Discussion	38
References	41
Appendix 1 Analyses of the relevant video-fragments.....	46
A. M. is looking for contact with her classmate	46
Fragment 1. M. and her classmate waiting	46
Fragment 2. M. wants to go on the swing	47
Fragment 3. M. tells her classmate the outdoor playing is over.....	47
B. M. meets other atypical children at school.....	49
Fragment 4. M. on her way to the playground	49
Fragment 5. M. looking for contact with a child in the playground	49
Fragment 6. M. reaches out	50
C. M. on her own	50
Fragment 7. M. wants to cycle.....	50
Appendix 2 Questions.....	51
Peers as powerful agents	51
Peer contact as an important source of emotional well-being.....	51
Origins of peer relationship skills	51
Siblings as a special kind of peer	52
Understanding peers	52



PREFACE

Throughout my life I have been aware that communication is vitally important to humans. That is probably why I have been intrigued by communication and people's need to be understood. That in turn has led me to become a carer and educator of people with a sensory impairment and/or other (multiple) disabilities through which communication is not as easily established as for most people.

The interest in communication has taken me to several countries where I have lived and worked and seen different ways of dealing with the same issues, namely the need to be understood and if not understood, at least to be taken seriously in the attempt of being understood. These experiences have given me an insight and a deeper understanding of what is essential in life. Never underestimate the drive that is the underlying force for trying to be heard! It resides in everyone however complex the disabilities or however young or old or different a person is.

This master course in congenital deafblindness brings a richer, deeper understanding of what it is to be deprived of hearing and vision, one of the greatest challenges in trying to be understood by the people around you. It is inspiring and needs to be credited as such. That is why I want to thank all the lecturers of this master course as they are the driving force behind it. They want to be heard and understood in their quest of finding ways for people with congenital deafblindness to be heard and understood. The master course in congenital deafblindness gives them the opportunity to be heard by a broader public.

However, I also realized that there is another side to being understood. It is easier to be understood by someone who is sharing the same interest; when there is something in common. People not only want to be heard, but they want to be understood by someone who is like-minded which brings into focus the search of people for people who are like-minded and will understand each other more easily and who will confirm that what you are doing is right. And that is another positive point about what this master course brings about; it brings people together who are like-minded and focuses their attention. The more people who will follow the course, the better the chances are to be heard and understood by others as the knowledge spreads and is shared.

I would like to thank Anne Nafstad and Marlene Daelman for their supervision and support throughout the study. It was a rocky road, but with their help I managed to pull through. Thanks to Marleen Janssen for setting up the course in the first place and making it possible for people to deepen their understanding of the need of people with congenital deafblindness to establish



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meaningful communication with the people around them. A big thank you to M. and her mother and teacher who made it possible for me to conduct this study. Thanks to my husband and children who were so patient with me throughout the year when I couldn't spend as much time with them as we all would have liked. Thanks to my parents who made it possible for me to study by minding the children.

And thanks to all the other people who supported me throughout this master study in congenital deafblindness.



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ABSTRACT

People with congenital deafblindness (CDB) need competent communication partners to help them to make sense of the world around them and to guide them in their contacts with other people (Janssen & Rødbroe, 2007). As people with CDB are not considered competent communication partners themselves due to their impairments and their use of idiosyncratic signs, it is difficult for people with CDB to establish spontaneous peer contact with each other (van der Heijden, 2009). This study was undertaken with the thought that if people in general benefit from having contact with peers, then why would this be different for people with CDB. The study wanted to look at the role of peer contact in general and the peer contact of a child with CDB in particular. The child with CDB is looking for contact with her peers on her own accord and is therefore considered an exemplary case.

The starting point of the study was to develop a conceptual framework derived from the literature to enable looking at the role of peer contact. The conceptual framework has proven to be very useful throughout the study, and led to several findings. The findings for the case study were especially remarkable, because it highlighted differences between M.'s peer contact at school and at home. The overall findings show that carers in the field of CDB need to be aware of the relevance of peer contact for people with CDB. Carers could look at peer contact in different settings using the conceptual framework.



INTRODUCTION

People are considered to have congenital deafblindness when their vision and hearing have become impaired before, during or after birth, but at least before the age of language acquisition. Communication is fundamental in order to make sense of the world, but for people with CDB communication with the people around them and the world around them presents a big challenge due to the nature of their impairments. Spoken language cannot be heard and sign language cannot be seen. The person with CDB will have limited access to the world around them without the help of a seeing/hearing person. The carers around the person with CDB face the important task of guiding him/her through the world. But the communication between the person with CDB and the seeing/hearing communication partner is not on an equal basis as one is dependent on the other and therefore their relationship is asymmetrical (van der Heijden, 2009). Peer relationships however are considered symmetrical for the most part (Tronick, 2004; Rubin, Bukowski & Laursen, 2009; Ladd, 2005). But as people with CDB are not considered competent communication partners due to their impairments, the peer contact between people with CDB is limited (van der Heijden, 2009). This study wants to focus on the peer contact of an exemplary case where a child with CDB is outgoing and looking for contact with the people around her, including her peers.

The main purpose of the study is to investigate whether children with CDB need more opportunities created for them to meet with peers. Another focus is on the role of siblings as a source for peer contact of the child with CDB. Through focusing on these issues related to peer contact the study wants to shed more light on the role of peer contact in general as there has not been a study done which focused solely on that issue. In order to do this a framework needs to be developed against which the study can be set. And through focusing on these issues related to peer contact and CDB the study also wants to stimulate awareness of the relevance of peer contact in the field of CDB in particular, as this field has not had much focus on peer contact as yet. The main research question is therefore:

- What are the issues related to peer contact of people with CDB?

And the sub questions are:

- Is it possible to derive a conceptual framework for peer contact from the literature?
- Can the conceptual framework be used in a case study for a child with CDB?



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- Which aspects of the conceptual framework are relevant for children with CDB?

To be able to answer the questions fully, the study has been divided into a literature study and a case study. In the first chapter the literature study will focus on creating a framework for peer contact and the importance of peer contact for typical and atypical children. The second chapter will describe the case study, and will focus on whether the framework can be used for looking at the peer contact of a child with CDB and also which aspects of the framework could be relevant (or less relevant) for children with CDB in general. The case study will be done through an observation and a set of questions answered by the mother of the participant. Chapter three will be the conclusion and discussion based on the findings.



1. LITERATURE STUDY

1.1 PURPOSE

As people with CDB need a competent communication partner to help guide them in their contacts, the peer contact between people with CDB is limited (van der Heijden, 2009). Therefore this study wants to focus on the peer contact of an exemplary case where a person with CDB is very outgoing and looking for contact with the people around her, with both adults and peers. The main purpose of the study is to get a better understanding of issues related to peer contact and CDB in general. The direction the study should take was not so easy to determine as peer contact is a very broad subject. After first exploring different routes - Bowlby's attachment theory, dyads, imitation, inter-subjectivity, emotion, ecology of human development and theory of human motivation - it became clear that the main goal of the literature study should be focused on trying to derive a framework for peer contact from the literature. This framework could then be used for the case study.

1.2 METHOD OF THE LITERATURE STUDY

When the direction for the study was found, it became clear which sources to use for the literature search, namely: a) the literature list of the master course on congenital deafblindness, b) the library catalogue database of the University of Groningen, c) recommendations on relevant literature by experts in the field of congenital deafblindness, d) references from the relevant literature, e) the online search engine Google, f) private collection.

The key words, comprised mostly of combinations of words, that were used for searching in the library catalogue database of the University of Groningen and the online search engine Google were: peer interaction, peer rejection, children's social competence, family and peers, children's social and emotional development, children's theory of mind, sibling and theory of mind, deaf social emotional development, blind social emotional development and deafblind social emotional development.

The literature most used for creating the framework came from the field of developmental psychology, Attachment Theory and Theory of Mind. Most of the literature for developmental psychology came from private collection, recommendations on relevant literature by experts in the field of congenital deafblindness, references from the relevant literature and the online search engine Google. The literature for the Attachment Theory came from the library catalogue database of the



University of Groningen, recommendations on relevant literature by experts in the field of congenital deafblindness, and the online search engine Google. The literature for the Theory of mind came from the library catalogue database of the University of Groningen, references from the relevant literature and the online search engine Google. For the study on atypical children as well as the case study more literature was found through the literature list of the master course on congenital deafblindness, references from the relevant literature, the online search engine Google.

Table 1 *Relevant literature from the different sources*

	Books	Articles	DVD's	Other
literature list of the master course	1			
library catalogue database of the RUG	3	2		
recommendations by experts	2			1
references from the relevant literature	3	6		
the online search engine Google		22		
private collection	3		4	

1.3 FRAMEWORK

After reading the literature certain questions arose. And with every question that was answered another question came up. The questions that arose were: a) When is someone considered a peer? b) Why is peer contact important for children? c) What needs to be in place in order for peer contact to happen? d) Where do the necessary skills for peer contact come from? e) If all the skills are in place and peer contact does take place, where does this lead ? For answering the questions the study mostly looked at the developmental psychology, Attachment theory and Theory of Mind. When all the questions were answered the framework took shape.



Table 2 *Conceptual framework*

Framework	Where from?	Why?	Essence
1. Peers as powerful agents	Developmental psychology	Explaining the need for peer contact	Equals: chronological and developmental path
2. Peers as a source of well-being	Developmental psychology	Explaining the need for positive, sustained peer relationships	Accepted/rejected: pro-social skills
3. Origins of peer contact	Attachment Theory	Explaining where the foundations for positive, sustained peer relationships are laid	Base for social skills: parents and parenting style
4. Siblings as a special kind of peer	Attachment Theory	Explaining the role siblings can have in the development of good peer relationship skills and the development of the self	Base for social skills: siblings as allies and rivals
5. Understanding peers	Theory of Mind	Explaining that positive, sustained peer relationships can lead to a strong sense of self	Understanding intentions and emotions

1.4. RESULTS OF PEER CONTACT OF TYPICAL CHILDREN

1.4.1 PEERS AS POWERFUL AGENTS

The reading of the theory gives the impression that the idea that people are influenced by the world around them is generally accepted. People are influenced by many things, for example their family, birth-order, culture, socio-economic factors, peers, environment, their (dis)abilities, their temperament etc. (Bronfenbrenner, 1979; Berndt & Ladd, 1989; Rubin, Bukowski & Laursen, 2009;



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Doherty, 2009). All these factors are considered to have an influence on each other, but for this study the aspect of peer influence will be focused upon, because children spend a great deal of time together with their peers, with and without supervision of an adult. In the literature, peer contact is considered to be of general importance, because it helps to develop a greater understanding and awareness of oneself and of other people. Children learn through imitation and reciprocation of peer behaviours (Pizzo, 2010; Dumas, Nadel, Soussignan & Martinerie, 2010; Eckerman & Stein, 1990; Rubin, Bukowski & Laursen, 2009; Berndt & Ladd, 1989). Peers learn from each other and identify themselves with each other, because they follow the same chronological and developmental timetable. Peers play a unique role in children's social and emotional development due to the fact that they are at the same stage of development and that they are experiencing the world at the same time, thus creating a generation of similar intend where it is possible to relate to each other with a similar background and experiences (Tronick, 2004; Rubin, Bukowski & Laursen, 2009; Ladd, 2005). That is why, in the literature, peers are seen as equals, as others like yourself. With people other than peers the relationship doesn't tend to be on an equal basis. Parents and teachers are more experienced and competent and will decree what to do and how to behave. Often the same goes for children who are older, and children who are younger will usually be less able. Only with peers there is an equality that cannot be got with other people. That is why peers are often referred to as age-mates. Peers measure themselves to each other and will get conclusions that way as to what they should be able to do and know. Also they show each other how to behave and what to think. Therefore they are considered powerful agents.

“It is within various peer contexts that children and adolescents acquire a wide range of skills, attitudes, and experiences that influence their adaptation across the lifespan. Accordingly, peers are viewed as powerful socialization “agents,” contributing well beyond the collective influences of family, school, and neighbourhood to child and adolescent social, emotional, and cognitive well-being and adjustment.” (Rubin, Bukowski & Laursen, 2009, p. 15)

1.4.2 PEER CONTACT AS AN IMPORTANT SOURCE OF EMOTIONAL WELL-BEING

The literature takes the point of departure that peers are at similar levels of development, and that they tend to have a great influence on each others' well-being. If peers think and act the same way, they will accept each other and will be feeling good about themselves as they are positively reinforced in their actions. But on the other hand if a child thinks or behaves differently from his/her



peers, there is a possibility that he/she will be rejected by those peers and thus the child will experience negative feelings about himself/herself as there will be a negative reinforcement of his/her actions (Rubin, Bukowski & Laursen, 2009; Asher & Gottman, 1981). With the viewpoint that peers have a large effect on children's well-being and development, the question arises as to how to get the best possible outcome for peer contact. Seemingly it is not enough just to meet peers in passing, but it is necessary that they interact with each other on some level as well. Peers need to make contact with each other and when it is possible to make that contact, it is important for the peers to try and have a positive outcome and be socially accepted by other peers. Only then will it have a positive effect on their development and well-being (Asher & Coie, 1990; Benson & Marshall, 2009).

The literature mentions that frequent contact with age-mates seems to enhance positive social competencies. They can provide children with support and positive feelings of worth, security, and belongingness. They can give companionship, be confidants and critics and will provide stability in times of stress (Tronick, 2004; Slee & Rigby, 1989; Ladd, 2005; Asher & Coie, 1990). Children with more positive experiences of peer contact tend to have more self-confidence, self-esteem and self-awareness. Children who have negative experiences of peer contact tend to have a lower self-esteem, have to cope with feelings of loneliness and have more emotional distress (Green, 2000; Ladd, 2005). They tend to feel that they are failing as a socially competent peer, they do not expect themselves to have social success and have the feeling that they are left out and that they do not belong, which can lead to depression. They might experience the feeling that nobody knows or cares about them. This in turn can lead to loneliness, anxiousness, aggression or withdrawn behaviour, social dissatisfaction and mental health problems later in life. The longer peer rejection lasts, the more it gets internalized and therefore might have a larger impact on the state of mental health of the rejected person (Tronick, 2004; Asher & Coie, 1990; Kerns, Contreras & Neal-Barnett, 2000). According to the literature there are various reasons why children might not be able to have positive outcomes in their peer contact. Several characteristics can lead to social rejection by peers, such as the personality of the child (temperament), limited or no communication skills, aggression, limited social skills and/or limited motor skills (Odom, 2005). At this stage the study will focus on the necessary social skills for positive outcomes of peer contact.

In the literature, when children want to have good peer relationships, they need to have the appropriate skills to make the peer contact positive and sustainable. The appropriate social skills that are required to turn peer contact into positive experiences consist of helpfulness, rule conformity,



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friendliness, consideration of others and pro-social interaction (Asher & Coie, 1990). Sharing and taking turns usually come to mind when describing social interactions that help children make friends as well as negotiation skills, the ability to delay gratification, problem solving skills and other skills involved in resolving conflicts (Slee & Rigby, 1989; Asher & Gottman, 1981). More examples of pro-social skills are self-calming skills, being aware of one's own emotions, recognizing the feelings of others, impulse control, and the ability to make eye contact (Riley, San Juan, Klinkner & Ramminger, 2008). Basically pro-social skills can be described as relationship skills which invite other people to feel positive and seek interaction.

1.4.3 ORIGINS OF PEER RELATIONSHIP SKILLS

As these pro-social skills are considered very important for good peer contact, the need arises to know how they are acquired. Children learn most of their social skills before they enter school through watching and interacting with their peers (Odom, 2005). According to some studies in order to have positive and sustained peer contact, good peer relationship skills are needed which can be acquired through early family interaction and modeling (Asher & Coie, 1990). Although another study argued that not only was early family interaction and modeling important, but being in contact with socially competent peers from an early age was equally important (Hanna & Meltzoff, 1993; Odom, 2005). Yet another study pointed out that indeed both family and peers are needed in order to get positive peer contact, but that the first years the family/carers need to be present during peer contact, so that the child can be guided and shown how to be a good peer. Gradually over time the carers could be more available in the background and let the child interact with peers on their own (Ladd, 2005). So, it could be said that in order to get to positive and sustained peer contact, regular exposure to peer contact from an early age is needed, but with guidance from adult carers.

The opinions are divided on whether or not children are born with some social skills. What most researchers imply is that infants are not born with pro-social skills, but acquire them later in life and that peers play an important role in the acquisition of (pro)social skills (Slee & Rigby). Although some say that infants are biologically prepared to form social relationships with their parents (Csibra & Gergely, 2006; Berndt & Ladd, 1989; Doherty, 2009). Whether infants are born with some skills necessary to form relationships with others or not, it is generally accepted, throughout the literature, that most social relationship skills are acquired over time through interaction with other people and that both adults and peers play an important role in the acquisition process.



The Attachment Theory claims that children first make contact with their primary caregivers before they turn to others and that the quality of the attachment is vitally important for the rest of the developmental process. Children who are considered highly securely attached seem to have a greater satisfaction with themselves, there is a higher likelihood of seeking social support and they will have less symptomatic response to stressful life events (Armsden & Greenberg, 1987; Kerns, Contreras & Neal-Barnett, 2000). It is also argued that children first need to be able to empathize with others in order to develop pro-social skills and that these skills tend to be formed from age 4 and up as there is little peer contact before then. And that preschools and daycare settings are places where children meet each other for the first time in a structured non-family setting (Sanstock, 2007; Bronfenbrenner, 1979). This would mean that family play an important role in the acquisition of social skills. They are the first ones to show their children how to behave and what to do with regards to social interaction. They are the ones to show their children how to recognize emotions and teach self-regulation. It is said that apart from providing a sense of safety and security, a secure attachment bond, family attachment relationships are also a major organizer of brain development (Schoore & Schoore, 2007). Others claim that the Attachment Theory emphasizes the role of the parents too much and that it doesn't take into account the importance of other factors, such as culture, socio-economic factors, peers, and the environment (Bronfenbrenner, 1979). It also doesn't take into account that infants might have an innate social nature, that they are able to engage in multiple relationships, that the child and the family are part of a complex social network, and that the development of the infants' relationships with the primary caregiver and other social partners follow a parallel course (Rubin, Bukowski & Laursen, 2009). Whether or not attachment is the base of all important developmental stages or not, at least there seems to be consensus on the fact that the parenting style has a large influence on the (pro-)social skills of the child. Different parenting styles have different outcomes as to whether the child has positive or negative experiences with regards to peer contact. The distinction is made between authoritative, authoritarian, permissive, and indifferent parenting styles. The parenting style with the most beneficial outcome for the Western child (culture plays an important role as to which of the parenting styles is most beneficial with regards to the social system the family takes part in) seems to be the authoritative parenting style, which acts as a democracy where the feelings and ideas of parents and children alike are considered worthy, recognized and supported (Rubin, Bukowski & Laursen, 2009; Benson & Marshall, 2009; Berndt & Ladd, 1989; Kerns, Contreras & Neal-Barnett, 2000; Slee & Rigby, 1989; Ladd, 2005; Doherty, 2009).



So, most of the studies conducted on peer contact agree that although many factors influence the acquisition of peer relationship skills, the origins lay within the family and their social network. Children might be born with the urge to be social, but the attachment bond with your parents, the way parents raise their children and let them play and interact with their peers early on in life, are considered the basis for acquiring peer relationship skills and whether or not the experiences will have a positive or negative outcome.

1.4.4 SIBLINGS AS A SPECIAL KIND OF PEER

Family and peers are considered important in the acquisition of good peer relationship skills. Studies on siblings argue that siblings are both family and peers at the same time, which is considered to give them a special role and function in the process of acquiring social skills. And even though there may be an age difference and their daily lives are entwined (which makes it different from other peer contacts), siblings are considered equal peers in the way that they experience the same background and family life. Siblings seem to spend a large part of their childhood in each others' company and they tend to be the peers who will stay together throughout life, from birth on (Benson & Marshall, 2009; Berndt & Ladd, 1989). Siblings are the earliest form of peer contact a child will have, provided the child is not the oldest born child or an only child (Astington & Edward, 2010; Eischens, 2010). It is mentioned in the literature that older siblings are important teachers of peer relationship skills as younger children can observe them and learn from the way they conduct their peer relationships. Siblings can also provide a laboratory setting for trying out and experiencing social skills, both positive and negative (Benson & Marshall, 2009). Siblings are considered to spend more time playing and interacting together than with the other children around them, which provides them with a sense of security and safety as they know each other inside and out. But with that viewpoint on siblings comes the viewpoint that siblings especially will enter into many fights and quarrels with each other as there will be a conflict of interest between them. The conflict of interest, is argued to arise from the fact that they will want to stand out in some way to attract the attention from the parents. This will cause arguments and fights between siblings, a rivalry (Berndt & Ladd, 1989; Benson & Marshall, 2009). Quarrels and fights are not necessarily considered negative though, as it will enhance negotiation skills, problem solving skills and other skills involved in resolving conflicts. It is considered healthy for the development of social skills and the individualization process to experience conflict situations and learn the appropriate skills to resolve them (Benson & Marshall, 2009; Rubin, Bukowski & Laursen,



2009). In the literature the point of view is taken that through the need to stand out, the need to be a unique being and become individuated from each other and the rivalry that follows, siblings will enter into conflict situations which in turn might lead them to learn to deal with a difference of opinion. The necessary skills for resolving conflicts seems to make siblings understand more about themselves and what they stand for, and learn to understand more about the other person and what he/she stands for. Which is considered to be another important skill to learn as it is another step towards intersubjectivity (Benson & Marshall, 2009; Foote & Holmes-Lonergan, 2003).

In short, siblings can be seen as teachers and preachers, rivals and allies, and they seem to play an important role in the development of peer relationship skills. They are considered to influence the identity, and siblings seem to help to define someone as a person as they try to stand out and be part of a group (the family) at the same time. Siblings, together with parents and non-related peers, are considered to help children to become who they are and guide them in how to approach each other, which forms the basis of whether or not the peer interactions will be successful (McAlister & Peterson, 2007).

1.4.5 UNDERSTANDING PEERS

In order to be considered successful in peer contacts, several studies point to the necessity to have acquired pro-social skills through family and peers. And in the process of acquiring the necessary pro-social skills, the need seems to arise for children to set themselves apart from other people, to form an identity and a sense of self. In doing so, an understanding of a person's own intentions and emotions will develop (Scherer, 2000). It is mentioned in the literature that through this process the intentions and emotions of other people will become clear which enhances the understanding of why other people act the way they do. This is considered essential for being pro-social, as being aware of one's own emotions as well as recognizing the feelings of other persons, are at the base of relationship skills (Woolfe, Want & Siegal, 2002; Reddy, 2008; Slee & Rigby, 1989). With this we enter the world of theory of mind. In short, theory of mind is a theory that considers the importance of understanding one's own mental state and recognizing and understanding the mental state of the other (Doherty, 2009; Grace, 2010). As said before in chapter 1.4.1 peers are seen as powerful agents in that they influence the way someone thinks, which means that peers seem to show each other what they are thinking and seem to try and make the other peer think the same way. It is considered to shape children and to shape their understanding of the mind of their peers as well as enhances



their identity as they can reject the thoughts of their peers or embrace them. In chapter 1.4.2 it is stated that good pro-social skills are seen as a requirement as it influences peer contacts in a positive way which in turn enhances self-confidence, self-esteem, and self-awareness (Green, 2000). So, the literature on theory of mind takes the viewpoint that through having a good grasp of the other person's mental state, it is possible to build up good peer relationships, which in turn will stimulate the sense of self. And also secure attachment is seen as an important step in the development of the self (chapter 1.4.3) which can regulate and understand it's own internal states and external relationships (Fuchs & De Jaegher, 2009; Tronick, 2004; Schore & Schore, 2007). In chapter 1.4.4 we could read the arguments for the importance of being around siblings and the rivalry that follows, for the enhancement of the self and it's role in the process of acquiring pro-social skills (Woolfe, Want & Siegal, 2003; Foote & Holmes-Lonergan, 2003; McAlister & Peterson, 2007). All of these experiences and skills are considered important tools for being able to have good peer contacts and establish good peer relationships which in turn will make people feel worthy and gives them a strong sense of self through with which they can connect with confidence to the world around them. This finding could be called a reciprocal situation in that peer contact is needed in order to learn how to expand the knowledge of how to conduct good peer contact and build up positive, sustainable peer relationships.

1.4.6 SUMMARY

The studies that were investigated here state that peers play an important role in daily life and that they are the ones who follow the same chronological and developmental time-line together which makes them unique to each other. They are considered to be the ones to turn to in order to compare that what you do, say and think is following the same line as that of your age-mates. If children follow that same line and are able to connect with each other, it is stated that there is a positive reinforcement in each others actions which makes it possible for them to feel good about themselves. But in order to be able to follow that same line and to connect to peers, pro-social skills are seen as a requirement, and as providing the child with the ability to understand the others' ideas and intentions. Parents, their parenting style and their social network seems to provide the child with a base for developing those skills, which is considered to have a large impact on the abilities to form peer relationships. Also studies on siblings suggest that they play an important part in acquiring pro-social skills as they are a special kind of peer. A peer that the child could have an intense emotional bond with and a peer who the child can practice his/her skills with, on a daily basis in a safe setting.



So, in the literature it is considered that through family and peers the child learns about who they are and how to approach others. The child seems to learn about his/her own intentions and emotions and will develop an understanding of the intentions and emotions of other people. According to the above mentioned studies, this is important, because it will set the child up with the necessary skills to connect to other people and be positively reinforced in his/her actions which will give him/her a positive sense of self and a strong identity, so they are able to cope with the stresses and strains of life. Therefore, peer contact is considered to be invaluable in the development of the self. Peer contact can be seen as equals being in interaction together so they can learn to understand each other and the other people around them. It is argued that in order to learn to understand each other and the other people around them, peers will need to be exposed to peer contact and through that peer contact peers will develop their understanding of each other and the other people around them further. This spiral of reciprocation is seen as important to the sense of self and, following that thought, it is very important that the spiral is a positive and not a negative one.

1.5. RESULTS OF PEER CONTACT OF ATYPICAL CHILDREN

1.5.1 PEERS AS POWERFUL AGENTS

Peers are considered powerful agents if they are able to identify themselves with each other and that they are considered equals and age-mates who travel along the same chronological and developmental path. In the case of atypical children and their age-mates however, this may not be on an equal basis. They may follow the same chronological time-line, but usually not the same developmental path. When looking at the developmental path of typical and atypical children it is noticed that there are typical children who are at the same developmental stage as atypical children, but usually at a different time in their lives. Which begs the question whether or not it is possible to talk about typical age-mates as being peers of atypical children. But children (typical/atypical) can be considered powerful agents to atypical children on the basis that they are socially competent peers and therefore are able to show them how to behave and what to think (Odom, 2005). Of course, children of the same age and similar disabilities could be considered peers in every respect and therefore it can be assumed that they would be as powerful agents to each other as typical peers are (Asher & Gottmann, 1981). This is on the presumption that the atypical children would be able to come into contact with each other and interact with each other as typical peers would. Atypical



children may have contact with each other, but in order to connect in such a way that they can measure themselves to each other and show each other how to behave and what to think, is often not so easy. On the other hand atypical children should be able to understand the conditions of the other and therefore can be considered a powerful agent provided that they are able to come into contact with and relate to each other.

1.5.2 PEER CONTACT AS AN IMPORTANT SOURCE OF EMOTIONAL WELL-BEING

Just as with typical children it is not considered to be enough for atypical children just to make contact with their peers, but that contact needs to have a positive outcome as well in order for them to be socially accepted by their peers and to feel positive about themselves and their abilities. And in order to do that they seemingly need to have pro-social skills. According to the literature, children with an atypical development might be experiencing problems in this area as they are more prone to have limited or no communication skills, limited social skills and/or limited motor skills, or to show signs of aggression which can all lead to social rejection by their peers (Odom, 2005). Atypical children might have more problems with pro-social skills like self-calming skills, being aware of one's own emotions, recognizing the feelings of others, impulse control, and the ability to make eye contact due to physical and/or mental disabilities. It is claimed that it is important for atypical children to be able to get into contact with typical children to enable them to improve their attitudes and social skills as they would be modeling themselves to the typical children (Asher & Gottman, 1981; Odom, 2005). On the other hand it is also argued that atypical children will do better when they are amongst equals so that they have an opportunity to excel in some way (Asher & Gottman, 1981). Some studies say that meaningful and diverse social relationships with atypical children are essential to target as these can be important psychosocial supports for atypical children and that merely increasing social opportunities will not necessarily lead to meaningful social relationships which are necessary to be positively reinforced and build up an identity. It might also mean that there will be a greater dependence on family members and care providers for the majority of their social needs (Mar, 1992, Smith, 1992).

1.5.3 ORIGINS OF PEER RELATIONSHIP SKILLS

Just like typical children, several studies argue that atypical children learn their social skills through interacting and building up relationships with others like family and peers. As stated above it



seems to be decidedly difficult to come into contact and build up relationships with peers for most atypical children. The studies investigated here state that this means that the family will need to take on a greater role in the acquisition of their pro-social skills. The family need to guide the peer contact between typical children and their own atypical child more intensely and for a longer period of time (Asher & Gottman, 1981; Mar, 1992). How long the parents need to guide their atypical child seems to depend on the individual situation. It is impossible to make a general statement about this as every atypical child and their family will have to deal with different impairments and therefore are facing different hurdles to overcome. The first years are often marked by many visits to hospitals and specialists and adjusting to another life style. So therefore the attachment bond with the parents is considered to be of greater importance than for typical children. The parents will already be challenged to connect and build up a relationship with the atypical child as they will need to adapt to the child's development which will be different than that of a typical child. And off course the manner in which the parents approach this challenge seems to be of great importance as it is mentioned in chapter 1.4.3 that the parenting style also can have a large influence on the development of pro-social skills of the child, on the way the child will approach other people. Again the authoritative parenting style seems to be the most important parenting style also with regards to the atypical child as it takes the feelings and ideas of the child into consideration and the child is considered worthy, recognized and supported (Tronick, 1998; Astington & Edward, 2010). This is considered to be incredibly important to atypical children as these children might have a hard time connecting to people outside of the family. But on the other hand the literature takes the point of departure that despite the importance of the family attachment bond for atypical children, peer contact is crucial to the atypical child as child-child dyads are still more equal than adult-child dyads (Hanna & Meltzoff, 1993; Slee & Rigby, 1989). So, with regards to the acquisition of pro-social skills of atypical children, the parents apparently have to take on a very important role. Next to the challenge of creating an attachment bond with their child, and the challenge of being a parent who makes the child feel worthy, recognized and supported, they also are considered to need to take the time and energy to provide their child with opportunities to come into contact with peers and to intensively guide the peer contacts and support them in their trials to approach the people they encounter.



1.5.4 SIBLINGS AS A SPECIAL KIND OF PEER

Siblings are considered to be both family and peers, and as such have a special role in the acquisition of pro-social skills. In the previous paragraph it was stated that the family of atypical children have to take on a larger role with respect to the acquisition of their child's pro-social skills as peer contact might not be all that easy to establish. Of course this would mean that the dyads aren't on an equal basis, and that special consideration would need to be given to establishing child-child dyads. As child-child dyads seems to be of great value, but peer contact is difficult to establish, siblings tend to be rather important to the atypical child. Siblings may be considered of even greater importance than other peers, because they are the ones who could be there as a peer to the atypical child on a daily basis and throughout their lives. Siblings might provide atypical children with meaningful, natural, and lasting social relationships which will benefit the psychosocial well-being of the atypical child (Woolfe, Want & Siegal, 2003; Mar, 1992). The atypical children could have role models and "natural" peers from an early age on, which will provide them with opportunities to learn and play with others like themselves (Smith, 1992). And through their siblings, atypical children might find other peer contacts within reach, if the siblings bring their peers home to play (Slee & Rigby, 1989). Thus, opportunities might be created for the atypical child to come into contact with non-related peers in a natural setting. It is said though that it matters whether the siblings are older, younger or a mix of both older and younger than the atypical child. When siblings are older they may have more difficulty in accepting an atypical sibling than when siblings are younger or with a mix of both older and younger, and therefore the older siblings might be less prone to share their peers and their social skills with their atypical sibling (O'Brien, Slaughter & Peterson, 2011). And off course the conflict of interest between the siblings, the need to stand out and be noticed, will be different between typical children and their atypical sibling. The atypical child will stand out regardless, but in a vulnerable way, so the conflict is not on an equal basis, making it hard for the typical sibling to enter into a rivalry.

So, in summary, even though siblings are considered to be very important in the development of the pro-social skills of the atypical child, the development of an identity, and as a source for non-familial peer contact, it doesn't mean that the siblings have an easy task. And again in the case of siblings as peers, the parents need to be pro-active in guiding the peer contact. The parental role can be seen as vitally important in the case of atypical children and their peer contacts as they need to



guide the contacts between their atypical child and his/her peers (both in the case of siblings and non-familial peers), so that hopefully these peer contacts might grow into attachment bonds and lasting peer relationships.

1.5.5 UNDERSTANDING PEERS

For atypical children it also seems to be necessary to be successful in their peer contacts, in order to feel good about themselves and be positively reinforced, just as with typical children. But the acquisition of the necessary pro-social skills seems to be more difficult for atypical children as coming into contact with peers is considered not as easy as with typical children. In the literature it is stated that parents and siblings need to take on a larger role in the acquisition process than with typical children. And seemingly through the acquisition process of pro-social skills, children tend to form an identity and learn to understand their own intentions and emotions. This is considered very important, because that way they could learn to recognize and understand the intentions and emotions of the people around them and could be able to relate to the people around them. These important facets seem to be at the base of what pro-social skills are all about (as they are considered relationship skills that invite other people to feel positive and seek interaction) and seem to be at the base of forming good, sustained peer relationships. Studies show that there are a lot of atypical children who will never get to the stage where they can claim to have the necessary social skills in order to connect to other people. Some studies that are done with children with congenital deafness are suggesting that the understanding of the intentions and emotions of other people is far less developed than their typical peers if they haven't been exposed to other children and adults with congenital deafness from an early age (Rieffe, 2010; Woolfe, Want & Siegal, 2003; Rhys-Jones & Ellis, 2000). They say that children need to have access to the world of social awareness, understanding, and sharing of emotions from an early age on and through a competent, fluent conversational partner. Only then will it lead to a healthy and natural development of the understanding of the self and other people, the theory of mind (Woolfe, Want & Siegal, 2002; Scherer, 2000). Research with children who are blind shows that they acquire a theory of mind later in their development than typical children, as the onset of initial word learning is relatively late and they do not have access (or limited access) to non-verbal conversational cues. Theory of mind depends on linguistic experiences and skills (Hughes & Leek am, 2004). So, acquiring a theory of mind seems to be linked to whether children are able to share their emotions with someone and interact with them about it.



1.5.6 SUMMARY

Seemingly, it is not so easy for atypical children to establish who their peers are, as for typical children. In the case of atypical children, peers can be defined as children who follow the same chronological time-line or children who share the same developmental path or children who have similar impairments. Whichever one is chosen, there could be additional complications in establishing contact due to the nature of the impairments. As it may be difficult for atypical children to establish contact with the people around them, it might have an effect on their well-being and the acquisition of the necessary pro-social skills for forming further peer relationships. That is why some studies argue that the family and/or other meaningful adults or communication partners of atypical children need to take on a larger role in the acquisition process and need to guide the atypical child intensively in their efforts to make contact with their peers. Siblings seem to be very useful to the atypical child as they could provide them with meaningful, natural, and lasting social relationships and a link to other, non-familial peers. Especially for atypical children it is considered to be important to build up secure attachment bonds with their family as these bonds seem to be important for the development of the self which in turn seems to be important for understanding oneself and other people. Several studies investigated here, mention that with the development of the self comes the ability for children (typical/atypical) to relate to the world around them. And with the understanding of the world around them, the realization would come that it is possible to have an influence on that world and that the world can have an influence on them.



2. CASE STUDY

2.1. METHOD OF THE CASE STUDY

The case study is based on a single case study with a flexible, qualitative approach focusing on the participant in a natural setting (Cozby, 2005; Robson, 1993). It is an intrinsic, descriptive case study with a pattern-matching procedure where several sources are being used, such as a set of questions, archival records, a direct field observation combined with participant-observation and video-analyses (Tellis, 1997). The purpose of the case study is to take a closer look at the peer contacts of a child with CDB by using the framework derived from the literature as a guide. For the case study an observation was done at the school and a set of questions was answered by the mother of the participant about the home situation.

Table 3 *Method of the case study table*

Case	Observation	Questions	Results
School setting	- Archival records - Field notes - Video, using the framework as a guide to analyze the scenes		In order to detect a pattern of peer contact of the participant, the results of the observation at the
Home setting		- Questions derived from the framework	school and the questions about the home situation, were compared

The Kentalis Guyotschool for children with deafness became the setting where the observation was done and it was conducted through a direct field observation where the participant was observed and filmed. The observer determined when the camera would film particular scenes at the school. These scenes had to be situations where it was possible for the participant to come into contact with peers. In analyzing the video-material the scenes were chosen which showed the most relevance to the theoretical framework. These scenes were then described objectively through what was seen on



the video-tape in order to get a clear picture of what was happening when the participant was reaching out to the peer(s) or came into direct contact with the peer(s).

When writing the set of questions, the framework was still developing. The questions needed a structure and the framework needed more structure as well. Formulating the questions helped to make the structure of the framework clear. The questions were then posed to the mother of the participant who was willing to give her view of the home situation by answering the questions both through writing and telephone contact.

The observation and the questions together made it possible to study the peer contact of the participant in different settings.

2.1.1 PARTICIPANT, SETTINGS AND PROCEDURE

The observation study was conducted at the Kentalis Guyotschool at Haren in the Netherlands, a school for children with deafness, where a participant was selected based on the primary goal of the study, namely the peer contact of a child with CDB. The participant, M., was selected on the basis that she has a combination of auditory and visual impairments from birth and that she seeks contact with her peers. The fact that M. is outgoing and is looking for contact with her peers can be considered unusual for a child with CDB and therefore M. can be seen as an exemplary case to study. The aim of the study is to learn from the way she looks for contact with her peers and from how her peers respond to her. At the time of the observation she was 13 years old. She is congenitally deaf-blind due to Peroxisome Biogenesis Disorder which is a metabolic deficiency. M. has a sensorineural hearing loss in both ears and refuses to wear hearing aids. She reacts to auditory stimuli at 50-60 DB and she has a vision of 0.08 with a restriction of her visual field on the top and left side. Contrasts and good lighting help her to use her residual vision. As M. knows the school very well, she is able to get around the school mostly unsupported. M. uses conventional and idiosyncratic signs, as well as objects of reference to communicate. Unfortunately it was not possible to retrieve information from the archival records at the school about the amount of signs and objects used by M., nor was it possible to record all of the signs and objects during the available observation period.

The questions (see appendix 2) posed to the mother of the participant were derived from the literature on peer contact. The questions were aimed at the home situation as the direct observation would take place at the school. This meant that it was possible to get information on the peer contact



of M. in different settings. The mother of the participant answered the questions by e-mail after an initial telephone conversation about the direction of the study.

For the case study each topic of the framework, derived from the literature study, was taken and looked at to see how it is informed by the case study fusing two different sources of knowledge; one derived from a set of questions about the home setting, and one derived from the observation in the school setting.

Table 4 *How the conceptual framework was used for the case study*

	Case	
	Observation	Questions
Framework		
1. Peers as powerful agents	+	+
2. Peers as a source of well-being	+	+
3. Origins of peer contact	–	+ (also a remark used from the initial telephone conversation)
4. Siblings as a special kind of peer	–	+
5. Understanding peers	+	+

2.2. RESULTS OF THE CASE STUDY

2.2.1 PEERS AS POWERFUL AGENTS

For this first step of the framework in the case study results were got both through the observation and the questions. Both at school and at home peers were found who follow the same chronological or developmental path as M. or peers who are considered socially competent. The findings will be presented underneath and they will be supported by examples.



At the Kentalis Guyotschool M. attends classes with another child with CDB of the same age. They have been in the class together since they were 3 years old. This is M.'s main peer contact with a child who has similar impairments and who is of the same age, thus M. and her classmate follow the same chronological and developmental path and could therefore be considered equal peers. Outside of the classroom, M. comes into contact with various different children, all of whom are deaf. Thus providing M. with atypical children who could be on the same chronological and/or developmental path as herself. Through the observation it was witnessed that M. doesn't have a lot of contact with either her classmate or the other children in the school, even though she tries to make contact with them. The following fragment clearly shows this.

Fragment 1. M. and her classmate waiting

MVI_0008

2 min. 09 sec.

M. and her classmate (P.) are sitting on their 'waiting' chairs. The chairs are positioned next to each other along the wall. M. is sitting next to a cupboard which is on her right-hand side and P. is on her left-hand side. M. reaches out to touch P. on the head, she has a faint smile and she vocalizes while she strokes his head. P. doesn't react.

Then M. puts her head on his shoulder for a few seconds before she continues to touch his hair, ear and neck in a stroking fashion. P. leans forward and slides his chair forward a little. M. stops touching him.

Then she places both hands on his leg and blows in his ear. Again she has a faint smile on her face. P.'s reaction is to move his chair forward again.

M. carefully places her left hand on the back of his chair to try and pull it closer which doesn't work. She then touches his leg for a brief second before returning to stroke his head while her elbow rests on the chair and her lower arm on P's shoulder. She taps his head once letting her hand linger on the top of his head, then sliding down gently to touch his hand which is covering his eye and ear at that moment. While doing that she moves her body and head towards him. P. reacts by sliding his chair forward four times.

M. places her arms in her lap and lets her head hang down for a moment, than her head comes up and she feels for the back of the chair. At this point the teacher tells P. to take his hand out of his eye. M. seems to notice the presence of the teacher and lowers her arm. As soon as the



teacher steps away again however, M. lifts up her arm to continue touching P. on the back of the head and neck. She rests her lower arm on the back of the chair and leans forward so she can rest her head on her hand near P. Then she takes her arm off to tap with her left hand on the back of her right hand. As soon as she doesn't lean on the chair anymore however, P. moves his chair forwards again. M. notices this and stops tapping her hand. She places her hands on top of each other in her lap and moves her head away from P. slightly, looking in the other direction.

After several seconds she looks back at P., localizes him and puts her hand out to shake his chair. She holds on to the back of the chair to try and move it. Then, while letting her wrist rest on the back of the chair, she touches P.'s back with her fingers while he is leaning forward. P. doesn't respond to this at all and M. takes her hand away again.

Again she leans forward towards P. and reaches out again. At this stage the teacher comes in and M. can get off the waiting chair.

This fragment shows that M. is persistent in her approach of her classmate and that whatever strategy she uses, her classmate doesn't react positively to her approaches.

At home M. has two siblings who are 6 years younger than she is (twins: a boy and a girl) and they live in a neighbourhood where a lot of other typical children live. Thus providing M. with opportunities to meet with various typical children who could be on the same chronological or developmental path as M., but who could also be considered socially competent peers and therefore are able to show M. how to behave and what to think.

For example: through the questions M.'s mother described a situation that regularly occurs, where M. and a typical 5 year old child from the neighbourhood play together. M. can play outside her house along which there is a public path. When M. notices someone in the vicinity, she will check out who is there. On finding this 5 year old girl, she will sign 'play' and they will start playing together. Or the girl will go to M. when she is playing and will imitate what M. is doing. M. will pick this up and they will continue to play together. Apparently, it is not always the girl who follows M. in her play, it can also be the other way around. And if M. wants to play on her own, she will let the girl know by gently pushing her away. The girl accepts this.



This example shows that M. is reciprocated in her approaches of the girl from the neighbourhood and that M.'s different reactions to the girls approaches are all accepted and responded to in a positive manner.

2.2.2 PEER CONTACT AS AN IMPORTANT SOURCE OF EMOTIONAL WELL-BEING

This second step of the framework states that children need to be accepted by their peers in order to feel worthy and that atypical children can be rejected by their peers because of the nature of their disabilities. Also it was argued that if children use the appropriate pro-social skills it is far more likely that they will be accepted by their peers. Both at the school setting and at home evidence was found that good pro-social skills are required to make peer contact a positive experience.

Through the observation it was witnessed that the other atypical children with deafness in the school do not seem to accept M. as a peer (see fragment 4 – 6 of appendix 1). An expert in the field of deafblindness (Daelman, M., personal communication) explained that the aversion of people with deafness of all ages towards their peers with deafblindness is cited regularly and that a possible explanation for this has to do with unconscious 'fear', because vision is so important for people with deafness. In a report on how people with deafness view people with acquired deafblindness, it was noted that people with deafness consider people with deafblindness to be very different (like 'foreigners'), the relationships with people with deafblindness to be too much of a responsibility and conversations with people with deafblindness were experienced as slow and strenuous (Kyle, Barnett, Dunbar, Taffurelli & Clarke, 2007). One of the goals for M., described in M.'s personal school plan, is to assist her in her trials to get into contact with the peers at school. The teacher and other people involved with M. at the school are trying to stimulate her social awareness by increasing the ways in which M. is communicating with the people around her by teaching her more four-handed signs, increasing the amount of objects of reference she uses, and by offering her narrativity to expand her knowledge of the world around her. School is also trying to teach her to share and take turns, to delay gratification and other social rules. The idea behind these goals and actions as described in the school plan is, that through increasing the knowledge and understanding of the world around her and with teaching her more conventional signs, M. will be better equipped to connect to the other people (including peers) around her. What was witnessed through the observation was that M. is definitely equipped with some social skills to make contact with her peers. Her social skills consist mostly of helpfulness to the people around her, friendliness, consideration of the people around her and she



seems to be aware of her own emotions. Apart from conventional social skills she is also very creative in finding other ways to connect to people. She is eager to have contact with her peers, but she is very modest in her approaches at the same time. She does not force the contact on anyone, but is waiting near her peers and is very gentle in her tactile approach of them. The strategy of the school though is to teach her more conventional social skills rather than guiding the peer contact between M. and her peers. As an example fragment 5 of appendix 1 is highlighted.

Fragment 5. M. looking for contact with a child in the playground

MVI_0029

7:34-8:02

28 sec.

M. walks towards a teacher who is interacting with a deaf child in a wheelchair. The teacher is standing in front of the wheelchair facing the child. M. walks around to the back of the wheelchair and places her hands on the handlebar. The teacher tells the child that M. is helping her with the wheelchair. M. is looking at the child and doesn't realize the teacher is saying something about her. She reaches out her right hand to touch the head of the child in the wheelchair. The child is still looking at the teacher signing, but doesn't seem to mind M. touching her on the head. Maybe the child is not able to turn around to interact with M., because of her physical disabilities. However, M. doesn't get a response from either the teacher or the child and walks away again after shaking the wheelchair a little.

This fragment shows that M. is very gentle in her approach of others and that neither the teacher nor the child let M. know that she has been noticed by them, thus rejecting her.

Through the questions it became clear however that at home M.'s peer contacts with typical peers are not always easy, but the better the children know M. and the better they know the signs that she uses, the better the contact is established. When M. understands what is expected of her in a play situation, she tries to take part in the game, and usually this is accepted. And through their interactions and play situations M. seems to have build up a sustained and positive peer contact with them which is positively reinforcing her in her actions. See the example given in chapter 2.2.1 on the peer contact between M. and a typical child in the neighbourhood. This example enhances the importance of sustained, positive peer contacts.



2.2.3 ORIGINS OF PEER RELATIONSHIP SKILLS

In this third step of the framework, it was stated in the literature study, that in order to get positive and sustained peer contact, regular exposure to peer contact is required from an early age on, but with guidance from the adult carers. And that for atypical children the family might need to guide and support them even more in their trials to connect with their peers. For this segment the questions were solely used as it focused on the home setting. The facts found below have come directly from the initial telephone conversation and the answers that M's mother has given to the questions in writing.

When M. was born she was placed in an incubator. Luckily she was fine and after a very brief spell in the incubator, she could go home with the parents. Later, when visiting the baby clinic (regular check-ups for babies is the normal procedure in the Netherlands), they discovered that there was something wrong with her eyes. This is the moment where they found out that M. could see very little. Only at the age of two did they find out that she had a hearing problem as well. When the results came through it showed that she had a profound hearing loss. The mother describes that M. seemed happy and cheerful as a child and didn't seem to suffer from her impairments and that the bond she has with several family-members is very strong and close.

M. lives with her mother and her twin-siblings. Her parents separated when she was 8 years old. But their respective families keep in contact with each other which means that M. still has contact with all the grandparents, aunts, uncles, and cousins of both sides. When M. was still an infant the family learned Dutch supported with signs (NmG), as well as four-handed signs to enable communication with her. M. did not come into regular contact with other children until the age of 3 when she started exploring the neighbourhood, as well as starting to attend a regular playgroup nearby and the Guyotschool for the deaf. Her main contact in her early years were predominantly with the adults around her, especially with her family members.

The family have always encouraged M. to do things on her own, giving her space to explore, but they have also instilled social rules on her. If M. does something that is not appropriate, she will be told off, just like the other children in the family. On the telephone, the mother explained that the parents have tried to guide M. in her contacts with her peers by taking M. to pet farms, playgrounds and other places where other (mainly typical) children were around to play. Through the questions it became clear that in order to make those other children, whom M. encountered at the pet farm, playground or other places, understand a little about why M. does things differently than most



children, the parents explain to the other children that she is a child with deafness and blindness and therefore needs to touch them in order to know who they are.

2.2.4 SIBLINGS AS A SPECIAL KIND OF PEER

This segment of the framework highlights the importance of the siblings as they are a daily and natural source of peer contact the atypical child will have, thus enhancing the development of the pro-social skills of the atypical child, the development of an identity, and they are a source for non-familial peer contact. Again this part will focus on the home situation and therefore only the answers given to the questions will be used.

When M. was six years old she got twin- siblings. The parents were of the impression that M. must touch something in order to begin to understand what it is that she is touching. Therefore they didn't know how to explain to M. that she would get siblings. When the twins arrived the mother doubts whether M. understood them to be her brother and sister, but she didn't seem to have a problem with the arrival of the twins and actually seemed to like those little human beings. The parents did implement the name-signs for the siblings straight away. M. and her siblings like to play together, for example they tickle each other or play rough and tumble. When there is an outing the children will all go to the pet-farm, playground or other places together with the mother. If M. displays inappropriate behaviour in a social setting, her siblings will also help to correct her and show her what to do instead, if they are near her when the inappropriate behaviour occurs.

The siblings bring their play-dates home. Mother reckons that the children who come to play for the first time need to adjust a little to M., but when children have been to their home before, they don't seem to have a problem with M. and she gets included in the games when possible.

As with typical siblings, M. and her siblings tend to quarrel as well, usually about (mis)taking each others' toys. The mother says that M. doesn't seem to understand exactly what is going on. Mother will help M. to understand by showing her the different toys and which toys belong to whom. With that understanding, M. will calm down, which shows that when M. understands the situation, there is no need for her to get upset. Understanding the world around you, creates awareness of your own intentions and emotions and awareness of your influence on the world as well as awareness that the world around you can influence you.

This example shows that siblings can be an important source of quarrelling and rivalry which is necessary to shape your identity.



2.2.5 UNDERSTANDING PEERS

For this final part of the framework, the understanding of peers, both settings will be looked at. Theory of Mind was described in chapter 1.3.5 as understanding one's own mental state and recognizing and understanding the mental state of the other. Both at the school setting and at home evidence was found that M. has an understanding of her own emotions and is trying to understand the mental state of the people around her.

At school M. is witnessed to have a sense of self and understanding her own intentions and emotions as well as the intentions of other people (the teacher in this case).

Fragment 3. M. tells her classmate the outdoor playing is over

MVI_0031

0:14-2:32

2 min. 18 sec.

The teacher has told M. that they are going back indoors and that they are going to get classmate P. who is still on the swing. The fragment starts where M. leaps towards the swing and taps his knee. Then she holds on to the rope with her left hand and looks back towards where she thinks the teacher should be.

She localizes the teacher and twice she points with her right hand towards P. while making a sound. Then she starts tapping and stroking his knee. The teacher rewards her for trying, by tapping her shoulder (M. is familiar with this signal). M. continues on tapping and stroking, but when nothing happens, she turns away from the swing and moves towards the teacher.

The teacher tells her to say to P. 'come'. M. taps his hand and makes a sign that looks like the sign she makes for 'teacher'. But with the lack of response, she turns back to the teacher and reaches out for her.

The teacher signs to her to tell P. the swinging is over. M. reaches for his leg, trying to move it. Then the teacher reaches for P. to sign to him to come. M. holds on to the rope while looking at P. The teacher walks around the swing to the back. M. is looking at what the teacher is doing. The teacher tips over the swing, so that P. lands on his feet. M. feels the swing to see whether P. is really gone.

The teacher hands her P.'s cap which has come off while swinging. M. throws it away. The teacher hands her the cap signing to her that it is P.'s cap. M. still pushes away the cap while



they walk away from the swing. The teacher and M. walk towards P. who is walking towards the door. When they have reached P. the teacher places the cap into M.'s hand again and M. puts it on his head as she comes up behind him. P. brushes it off as he walks away biting his arm. M. is still holding the cap and the teacher comes over to walk with her towards P., again rewarding M. for trying.

They come up from behind P. again and place the cap on his head together. P. lets it happen this time. M. taps his head and his back (as if rewarding him like she is rewarded?). P. sets off for the door. M. holds on to his back with both hands while following him. When P. doesn't respond negatively, she places her hands on his shoulders. They stop for a moment where M. lets go with one hand, tapping herself on the shoulder as if to reward herself and is looking back at the teacher. The teacher confirms the reward. M. then uses her free arm to gesture forwards. P. tries to shrug off M., but doesn't succeed. He walks towards the door with M. still holding on to him. M. is quite vocal at this time and is skipping some of the time which seems to indicate that she is enjoying the situation (her face is not on camera at this time). When inside he pushes off M.'s hands. M. lets him and turns towards the teacher, making the sign for teacher.

The fragment shows that M. has an understanding of her own intentions and emotions and is trying to understand the intentions of the teacher.

Through the questions the mother described that she thinks that M. wants to know why people react the way they do, because she clearly notices when the mother is angry, or upset, and M. will come over to her mother looking for contact at those moments. Emotional concepts are abstract, and the mother finds it very difficult to explain these abstract matters to M.. The mother is not certain that M. would be able to understand the emotions and the intentions of other people and mother said she doesn't know how to approach such an abstract subject anyway.

2.2.6 SUMMARY

Through comparing the information coming from the observation and the questions it becomes clear that M. is surrounded by her peers at the school and at home. The results show that there is a remarkable difference in the peer contact M. has at the school and the peer contact M. has at home. At the school M. reaches out to her classmate and to the other atypical children in the school, and sometimes even has contact with them, but she doesn't seem to succeed to connect with



them and certainly not in having sustained peer contact with them. The peers at school reject M. for the most part, who keeps on reaching out to them. At home however the situation is quite different. The typical, socially competent peers M. encounters there, are willing to include her in their games and accept her for who she is. They will also follow M. in her approaches and her games. Her siblings play an important role in M.'s peer contact, being peers themselves, as well as giving her opportunities to have contact with non-familial peers. The mother is guiding the peer contacts both with the siblings and with other, non-familial peers. M. is treated the same as her siblings in that she will be pulled up on her social skills. At the school M. is also witnessed to approach her peers, but, at the time of the observation, there was no sign of her teachers guiding her approaches or pulling M. up on her social skills. M. does show signs of understanding intentions and emotions, both at school and at home, but the family/carers around her doubt that she will be able to understand them fully and no attempt is made to communicate with her about these concepts up to now, neither at home or at school.

2.3 RESULTS RELATED TO PEOPLE WITH CDB

The literature was the source for creating the conceptual framework through which the rest of the study was conducted. The literature study provided knowledge about the peer contact of typical as well as atypical children by using the framework, and the case study provided knowledge on the peer contact of a particular child with CDB, also by using the framework. Through the framework the study will now focus on people with CDB in general. The findings of the study indicate that carers should look at peer contact of people with CDB in different settings using the framework as not much focus has been on peer contacts in the field of CDB.



Table 5 Overall results by using the conceptual framework

Framework	Literature study		Case study	General CDB	
	Typical children	Atypical children	Observation in school setting	Questions about home setting	
1. Peers as powerful agents	Equal peers: chronological and developmental path	Peers: Chronological OR developmental path	One equal peer. Other peers: Chronological OR developmental path	Typical peers: Socially competent, but Chronological OR developmental path	Look at what type of peer contact is available: equal, socially competent, chronological, developmental.
2. Peers as a source of well-being	Accepted/rejected: pro-social skills	More chance of rejection, larger input needed of family with regards to pro-social skills	Mostly rejected. Uses conventional and idiosyncratic social skills.	Mostly accepted. Uses conventional and idiosyncratic social skills	Look at which peer contact is most successful and why + make an inventory of what social skills are used
3. Origins of peer contact	Base for social skills: parents and parenting style	Family need to have a larger input and for a longer period of time	Teacher has a large input in the guidance of pro-social skills and contacts	Mother has a large input in the guidance of pro-social skills and initial contacts	Larger input needed of family and carers for developing skills and contacts
4. Siblings as a special kind of peer	Base for social skills: siblings as allies and rivals	Difficult task: larger role as a peer and less rivalry on equal grounds	N/a	Important task: they are daily peers and a source for non-familial peers less rivalry on equal grounds	Look at the role siblings play
5. Understanding peers	Understanding own and others' intentions and emotions	Possibility of understanding depends on impairments	Understanding own, willingness to understand others'. No communication on these matters at present	Understanding own, willingness to understand others'. No communication on these matters at present	Look at the possibility of understanding and development of understanding own and others' intentions and emotions



DISCUSSION

The main research question of the present study focused on what issues are related to peer contact of people with CDB in general, but in order to find those issues, the sub questions needed to be answered first. Especially the first sub question about the possibility to derive a conceptual framework for peer contact from the literature, proved to be crucial, because with the conceptual framework in place the rest of the study could be related to it. This meant that the second sub question, whether the conceptual framework can be used in the case study for a child with CDB, was answered as well as the conceptual framework proved to be useful throughout the study, including the case study. The third sub question, which aspects of the conceptual framework are relevant to children with CDB, could be answered using the findings of both the literature study and case study. The first aspect that is most relevant is the type of peers that are available to children with CDB, as this can lead to a difference in equality between peers and thus can have a different outcome of peer contact. The second aspect that is most relevant is the social skills of children with CDB, as they use both conventional and idiosyncratic skills and play a part in their approach of peers and how peers perceive these. The third most relevant aspect is the way in which the children with CDB are guided in their peer contacts. This will make a big difference as children with CDB need to be scaffolded in their approach of peers by carers who are familiar with their idiosyncrasies in order to make the peer contact positive and sustainable. The fourth most relevant aspect is the availability of siblings, as siblings can play an important and major part in the peer contact of children with CDB as they are peers themselves and as sources for non-familial peer contact. The last aspect that can be considered most relevant is the importance of looking at peer contact in different settings. Through the case study it was shown that different settings can host different experienced of peer contact. Through looking at the differences in the different settings more information can be got on how peer contact is conducted and why it is more (or less) effective in one setting than it is in another. The aspect that proved to be less relevant was understanding intentions and emotions as this aspect depends on the abilities of the person with CDB with regards to understanding intentions and emotions.

With all the sub questions answered, the main question came into focus again, namely what issues are related to peer contact of people with CDB in general. What has been shown is that people with CDB depend heavily on their carers to be competent communication partners who know the idiosyncrasies of the people with CDB well and who are therefore able to guide the peer contacts.



Only then will it be possible for people with CDB to build up positive, sustainable peer relationships which could enhance their sense of self and identity. All the research questions were answered using the conceptual framework which has proven to be very effective in order to look at the role of peer contact. The conceptual framework can be used in the field of CDB to give crucial information on what people with CDB need in order to have positive peer contact and enhance their sense of self and identity.

A remarkable finding of the case study was the fact that the peer contact of M. differs greatly in the different settings, namely the school environment and the home environment. This may be due to a combination of aspects, namely having different types of peers in the different settings as well as the different way in which M. is being scaffolded in the different settings. At school she mostly encounters atypical peers who follow her chronological or developmental path and at home she mostly encounters typical peers who follow her chronological or developmental path, but who are also considered socially competent peers. Apart from the type of peer, the way in which M. is scaffolded plays a large role. As it turns out, her peer contacts at home seem to be scaffolded much more by the adults around her than the peer contacts at school. This may be the main reason why the difference is so profound. Mar (1992) points to the importance for children with CDB of being scaffolded in their contacts with other people by their carers. He argues that the family is very important as they need to have a large input in guiding the child with CDB. Through the present study it was shown that the role of the family and siblings of children with CDB can indeed be of great importance. The interesting finding of the difference between settings was noticed before by Goode (1994), who did research with children with CDB in a care environment and in a home environment and also found a profound difference due to differences in scaffolding and in understanding the idiosyncracies of the children with CDB. This present research enhances his findings.

There are a couple of considerations to be made with regards to the study. Firstly, both settings were not recorded with equal measurement. At one setting a direct observation was done, but at the other setting the mother of the participant answered a set of questions and no direct observation took place. This may have had an effect on the remarkable difference in the two settings. In order to confirm the profound difference, both settings should be looked at with equal measurement. A second consideration is that the study was done with just one participant, who is considered to be an exemplary case. Peer contact of people with CDB in general could therefore be different. Further research could look into the peer contact of several participants with CDB by using



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the framework as a guide. Future research could also look at whether children with CDB could benefit from having contact with younger, typical children who are at a similar developmental level, guided by adults who are familiar with their idiosyncrasies. This could be of importance as the findings show that the type of peer may well be a factor in the outcome of the peer contacts of children with CDB. For following up this issue even further, research could also be focused on the reciprocal relations of children with CDB in their different environments to see whether the findings will be as remarkable as those of M., the exemplary child with CDB. The findings could indicate if there is a difference, but more importantly why there is a difference. This might lead to looking more closely at the social skills, both conventional and idiosyncratic, the person with CDB uses and the competencies of carers for scaffolding initial peer contact.

The findings of this study have important implications for the practical field. The need for competent communication partners was known to the practical field, but up until now very little research has been done with regards to peer contact in relation to people with CDB. This present study has shown that it is indeed difficult to find peers of children with CDB who are equal to them, but that at the same time the importance of peer contact for people with CDB must not be underestimated. Other types of peers can be as important as equal peers or may be even more important than equal peers to children with CDB. The conceptual framework can provide carers with a base for looking at their own capabilities as competent communication partners, and their capabilities of scaffolding potential peer contacts of people with CDB. Because only when people with CDB are scaffolded in their peer contacts by competent communication partners will it provide them with positive experiences of peer contact. And peer contact is required to help people with CDB to develop their sense of self, their identity.



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APPENDIX 1 ANALYSES OF THE RELEVANT VIDEO-FRAGMENTS

A. M. IS LOOKING FOR CONTACT WITH HER CLASSMATE

FRAGMENT 1. M. AND HER CLASSMATE WAITING

MVI_0008

2 min. 09 sec.

M. and her classmate (P.) are sitting on their 'waiting' chairs. The chairs are positioned next to each other along the wall. M. is sitting next to a cupboard which is on her right-hand side and P. is on her left-hand side. M. reaches out to touch P. on the head, she has a faint smile and she vocalizes while she strokes his head. P. doesn't react.

Then M. puts her head on his shoulder for a few seconds before she continues to touch his hair, ear and neck in a stroking fashion. P. leans forward and slides his chair forward a little. M. stops touching him.

Then she places both hands on his leg and blows in his ear. Again she has a faint smile on her face. P.'s reaction is to move his chair forward again.

M. carefully places her left hand on the back of his chair to try and pull it closer which doesn't work. She then touches his leg for a brief second before returning to stroke his head while her elbow rests on the chair and her lower arm on P's shoulder. She taps his head once letting her hand linger on the top of his head, then sliding down gently to touch his hand which is covering his eye and ear at that moment. While doing that she moves her body and head towards him. P. reacts by sliding his chair forward four times.

M. places her arms in her lap and lets her head hang down for a moment, then her head comes up and she feels for the back of the chair. At this point the teacher tells P. to take his hand out of his eye. M. seems to notice the presence of the teacher and lowers her arm. As soon as the teacher steps away again however, M. lifts up her arm to continue touching P. on the back of the head and neck. She rests her lower arm on the back of the chair and leans forward so she can rest her head on her hand near P. Then she takes her arm off to tap with her left hand on the back of her right hand. As soon as she doesn't lean on the chair anymore however, P. moves his chair forwards again. M. notices this and stops tapping her hand. She places her hands on top of each other in her lap and moves her head away from P. slightly, looking in the other direction.



After several seconds she looks back at P., localizes him and puts her hand out to shake his chair. She holds on to the back of the chair to try and move it. Then, while letting her wrist rest on the back of the chair, she touches P.'s back with her fingers while he is leaning forward. P. doesn't respond to this at all and M. takes her hand away again.

Again she leans forward towards P. and reaches out again. At this stage the teacher comes in and M. can get off the waiting chair.

FRAGMENT 2. M. WANTS TO GO ON THE SWING

MVI_0027

1:16 – 2:20

1 min. 4 sec.

M. has told the teacher that she wants to go on the swing. In the fragment we see her going to the swing only to find her classmate P. already there. They both stand at the swing facing each other for a few seconds, then M. turns as if looking for the teacher. She faces the way she knows the teacher was standing.

In the mean time P. is busy with the swing behind her. This episode takes 16 sec. After this she turns to the swing again. She faces P. for a second and proceeds to go to the rope of the swing just as P. sets of on the swing. M. nearly falls over as the swing hits her. Again she turns towards where she has last seen the teacher.

She walks away from the swing as the teacher arrives. M. and the teacher meet and M. offers her hands to her. The teacher says that they will help P. on the swing. M. follows the teacher obediently to the swing, but as the teacher wants to place M.'s hands on the rope, M. pulls her hands down and takes a slight step back. She seems to make a sign that looks like 'finished' and grabs the hands of the teacher to tell her that she wants to do something else. The teacher follows M.

FRAGMENT 3. M. TELLS HER CLASSMATE THE OUTDOOR PLAYING IS OVER

MVI_0031

0:14-2:32

2 min. 18 sec.

The teacher has told M. that they are going back indoors and that they are going to get classmate P. who is still on the swing. The fragment starts where M. leaps towards the swing and taps



his knee. Then she holds on to the rope with her left hand and looks back towards where she thinks the teacher should be.

She localizes the teacher and twice she points with her right hand towards P. while making a sound. Then she starts tapping and stroking his knee. The teacher rewards her for trying by tapping her shoulder (M. is familiar with this signal). M. continues on tapping and stroking, but when nothing happens, she turns away from the swing and moves towards the teacher.

The teacher tells her to say to P. 'come'. M. taps his hand and makes a sign that looks like the sign she makes for 'teacher'. But with the lack of response, she turns back to the teacher and reaches out for her.

The teacher signs to her to tell P. the swinging is over. M. reaches for his leg, trying to move it. Then the teacher reaches for P. to sign to him to come. M. holds on to the rope while looking at P. The teacher walks around the swing to the back. M. is looking at what the teacher is doing. The teacher tips over the swing, so that P. lands on his feet. M. feels the swing to see whether P. is really gone.

The teacher hands her P.'s cap which has come off while swinging. M. throws it away. The teacher hands her the cap signing to her that it is P.'s cap. M. still pushes away the cap while they walk away from the swing. The teacher and M. walk towards P. who is walking towards the door. When they have reached P. the teacher places the cap into M.'s hand again and M. puts it on his head as she comes up behind him. P. brushes it off as he walks away biting his arm. M. is still holding the cap and the teacher comes over to walk with her towards P., again rewarding M. for trying.

They come up from behind P. again and place the cap on his head together. P. lets it happen this time. M. taps his head and his back (as if rewarding him like she is rewarded?). P. sets off for the door. M. holds on to his back with both hands while following him. When P. doesn't respond negatively, she places her hands on his shoulders. They stop for a moment where M. lets go with one hand, tapping herself on the shoulder as if to reward herself and is looking back at the teacher. The teacher confirms the reward. M. then uses her free arm to gesture forwards. P. tries to shrug off M., but doesn't succeed. He walks towards the door with M. still holding on to him. M. is quite vocal at this time and is skipping some of the time which seems to indicate that she is enjoying the situation (her face is not on camera at this time). When inside he pushes off M.'s hands. M. lets him and turns towards the teacher, making the sign for teacher.



There are several more fragments like this, where M. is trying to tell her classmate to come as they are switching activity. It follows more or less along the same line, where M. tries to collect P. and when she doesn't succeed she will turn to an adult, in this case usually the teacher, for help.

B. M. MEETS OTHER ATYPICAL CHILDREN AT SCHOOL

FRAGMENT 4. M. ON HER WAY TO THE PLAYGROUND

MVI_0022

0:16-0:21

5 sec.

M. seems very excited to go and play outside, she runs, nearly skips through the hall on her way out. While rounding a corner, she nearly collides into someone. She doesn't seem to notice however and continues on.

There are more children in the hall coming from the playground on their way to class. M. doesn't seem to notice them either and nearly runs into them. She notices just in time however and slows down walking very closely past the first boy. The boy saw her coming and as he couldn't get out of her way, because of a wall, he also slows down before M. reaches him. As M. walks past however, he turns his body to pretend-thump her in the back. M. doesn't notice.

FRAGMENT 5. M. LOOKING FOR CONTACT WITH A CHILD IN THE PLAYGROUND

MVI_0029

7:34-8:02

28 sec.

M. walks towards a teacher who is interacting with a deaf child in a wheelchair. The teacher is standing in front of the wheelchair facing the child. M. walks around to the back of the wheelchair and places her hands on the handlebar. The teacher tells the child that M. is helping her with the wheelchair. M. is looking at the child and doesn't realize the teacher is saying something about her. She reaches out her right hand to touch the head of the child in the wheelchair. The child is still looking at the teacher signing, but doesn't seem to mind M. touching her on the head. Maybe the child is not able to turn around to interact with M., because of her physical disabilities. However M. doesn't get a response from either the teacher or the child and walks away again after shaking the wheelchair a little.



FRAGMENT 6. M. REACHES OUT

MVI_0051

0:00-0:02

2 sec.

M. has been sitting in the bus with the door open, waiting to go to the respite care home. Another child from her school (deaf) is sitting on the step beside M.'s seat. M. has noticed her and has just reached out and touched the child on the head. The fragment shows the child pulling away and feeling her own head with an unhappy look on her face. Then she turns to look back at M. M. places her hands in her lap and returns to just sitting in her chair.

There are more fragments like this where M. and the children at school do not come into contact with each other.

C. M. ON HER OWN

FRAGMENT 7. M. WANTS TO CYCLE

MVI_0029

0:14-0:40

26 sec.

M. has chosen to play with a bicycle where one child can sit on the saddle and another can sit on the back. M. is sitting on the back and taps the saddle as if to ask whether anyone could ride the bike. When there is no response she goes to sit on the saddle tapping the back as if to ask whether anyone will ride with her. No-one seems to notice and there is no response. M. gives up.



APPENDIX 2 QUESTIONS

PEERS AS POWERFUL AGENTS

- How soon after her birth did M. come into contact with other children? For example with cousins, other babies, neighbourhood children, etc.
- Can you tell something about these contacts? Could you give an example?
- Who would you say M. has more contact with, adults or children and why?
- Can you give examples of contact with children?
- Are there, besides school and respite care, times when M. has contact with other children with disabilities? If so, can you describe such a contact moment?

PEER CONTACT AS AN IMPORTANT SOURCE OF EMOTIONAL WELL-BEING

- Does M. try to contact others? If so, is it usually M. who reaches out or usually others?
- When M. tries to contact others does she usually look for contact with adults or with children?
- From what age on did M. first try to contact others?
- Can you give examples of how M. tries to contact others?
- How do others (particularly other children) respond to M.'s approach?
- Can you tell anything about the contacts she has at the respite care home?

ORIGINS OF PEER RELATIONSHIP SKILLS

- It wasn't until after the birth that you knew something was not quite right with M.. How did that process go and how did you deal with this?
- Can you describe the relationship you have with M.? How close would you say your relationship is with her?
- How do you guide M. in her contacts with other children? Do you make a conscious effort in trying to get M. into contact with other children? Have you always done this even when she was little?
- How important do you think it is for M. to come into contact with other children? And why?
- Can you describe your parenting style? (What's your parenting style)



- Do you yourself have many social contacts? How is your social network build up?
- Do you know many people with children who you have contact with on a regular basis? And have you always brought M. with you when you went to visit? Can you give examples of these visits?
- Do you correct M. when she shows behaviour that is not socially acceptable? If so, how do you go about it?
- Does M. have regular contact with other family-members like grandparents / grandmothers / aunts / uncles / cousins? Can you describe these contacts: how, when, where, how often etc.
- Are there other people whom M. has a strong relationship with? Can you describe who and why?
- You go out a lot with the children, you told me on the phone. Do you go together with all three of them? Can you give examples of the places you go to and what happens when M. comes into contact with others, especially children?

SIBLINGS AS A SPECIAL KIND OF PEER

- M. was 6 when the twins were born. Did M. know that they would be born? How did M. respond to the arrival of the twins?
- Do they have contact with each other much? Is it usually M. or her siblings who try to make contact first? Is there a difference in the contact between M. and her sister and M. and her brother?
- Does M. try to connect with them and how?
- Do they correct M. when she behaves in a way that is not socially acceptable? How?
- Do the children quarrel amongst themselves? How, when and where does this take place? Can you describe such a situation?

UNDERSTANDING PEERS

- Can M. share with others (playing together, sharing)?
- Does M. take turns when playing (or other contact moments) with others?
- Does M. adapt to what other children want (in a game)?



- Do you think M. is aware of what others do, want and experience? And why do you think this is?



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