

# How was your day?

Parent, teacher and child perceptions of communication about the school day with children on the autism spectrum FINAL REPORT

Professor Lesley Stirling Professor Cheryl Dissanayake Associate Professor Kate Sofronoff Associate Professor David Trembath Associate Professor Marleen Westerveld Dr Jill Ashburner Lindsay Pamment Carly Pettiona

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## FINAL REPORT

**Professor Lesley Stirling** University of Melbourne I Autism CRC

**Professor Cheryl Dissanayake** Olga Tennison Autism Research Centre, La Trobe University I Autism CRC

Associate Professor Kate Sofronoff The University of Queensland I Autism CRC

Associate Professor David Trembath Griffith University | Autism CRC

Associate Professor Marleen Westerveld Griffith University | Autism CRC

**Dr Jill Ashburner** Autism Queensland I Autism CRC

Lindsay Pamment University of Melbourne

**Carly Pettiona** University of Melbourne

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#### The Cooperative Research Centre for Living with Autism (Autism CRC)

The Cooperative Research Centre for Living with Autism (Autism CRC) is the world's first national, cooperative research effort focused on autism. Taking a whole-of-life approach to autism focusing on diagnosis, education and adult life, Autism CRC researchers are working with end-users to provide evidence-based outcomes which can be translated into practical solutions for governments, service providers, education and health professionals, families and people on the autism spectrum.

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# 1. Background to the project

### 1.1 Overview

Children on the autism spectrum<sup>1</sup> have known difficulties at school related to the variety of challenges these children face in language, social communication and in cognition (Humphrey & Lewis, 2008; Ashburner et al., 2010; Saggers et al., 2011; Falkmer et al., 2012; Saggers, 2015). Students report that these challenges may lead to anxiety and affect school connectedness and learning outcomes (Adams et al. 2018; Einfeld et al. 2018). We know that increased engagement of parents is related to reduced issues with bullying at school (Hebron & Humphrey, 2013) and that children's capacity to effectively communicate about school experiences is important (Sofronoff et al., 2011, Einfeld et al. 2018). Such communication can also provide insight into children's interests and success at school, which can be harnessed to help address challenges. However, they may struggle to converse about events at school and how to tackle them, and for parents to effectively support their child, and intervene if necessary, they need to know what is happening at school. Further, much of the existing research has focused on secondary school students, with less done in the primary school context.

Children on the spectrum are also known to have greater difficulties with narrative (Stirling et al., 2014), and in particular are known to find it difficult to progress narratives in conversation (Solomon, 2004) and to switch between their own perspective on events and that of others including other participants in a narrative (Garcia-Perez et al., 2008). Extrapolating from these findings, we speculated that they likely face challenges in considering hypotheticals and alternative courses of action (Harris, 2000). It may be that children on the spectrum are less likely to be able to effectively convey their school experiences to their families at home, and less likely to be able to brainstorm how to deal with problem situations with their parents to equip them to handle challenging or negative experiences next time they arise.

The motivation for this study was to explore the nature of home communication about school events between children on the spectrum and their parents. Its aims were firstly to investigate parent, teacher and child perceptions concerning home communication about the school day, comparing families with children on the spectrum and families with children who are not on the

<sup>&</sup>lt;sup>1</sup> The terms used in this report when referring to participants is in accordance with the recommendations provided by the Autism CRC.



spectrum, and secondly to video-record and analyse actual family interactions with children after school.

The results may inform the development of approaches to facilitate conversations about school between children on the spectrum and their parents as a preventative approach to minimise the impact of negative events at school.

### 1.2 Research questions and study goals

The following research questions were established to address the goals of the study:

- 1. Do parents perceive there to be difficulties in communicating about the school day with their child on the spectrum?
- 2. What type of personal autobiographical stories do children who are and are not on the autism spectrum tell about their day after school?
- 3. Do parents and children engage in discussion of possible alternative scenarios in talking about school experiences?
- 4. Where do communication breakdowns occur in conversations between children on the spectrum and their families about the school day?

Through answering these questions, our aim for the study was to better inform potential future support programs aimed at improving communication between parents and children about the school day.

# 2. Research Methods

### 2.1 Design

Ethics approval for this project was obtained from the participating institutions: the University of Melbourne, La Trobe University, the University of Queensland, and Griffith University.

The project used a mixed methods study design including the following two methods for investigating home communication about the school day:

1. Purpose-designed surveys for parents and teachers, and structured interviews with the children (focus on RQ 1). These were analysed quantitatively and qualitatively.



2. Video-recordings of naturally occurring after school interactions between the children and their parents, carers or other members of their family (focus on RQs 2-4). Analytic techniques include Conversation Analysis and Narrative Analysis.

Parents were asked to complete a demographic questionnaire and diagnosis with autism spectrum disorder (ASD) was confirmed using the Social Communication Questionnaire (Lifetime) (Rutter et al., 2003).

The project was conducted in two parts. In Part 1, described in detail in section 2.2, families were recruited to participate in both the surveys and video-recorded after school interactions. After preliminary analysis of the data from Part 1, we decided to pursue a larger participant pool of families to complete the parent survey, and developed Part 2 of the study which was an online version of the parent survey that had been administered in paper form in Part 1.

We report on Part 1 and Part 2 of the project separately in this document.

### 2.2 Part 1 of the project

The initial study aimed to recruit families of primary school aged children who lived in Victoria and Queensland to take part in parent and teacher surveys, video-recording of naturally occurring after school interactions between the target children and other family members, and a semi-structured interview of the target child.

### 2.2.1 Recruitment and participants

#### 2.2.1.1 Recruitment

Families were recruited from the greater Melbourne and greater Brisbane areas during 2016-2017, with a goal of approximately 30-40 families, evenly spread across autistic and non-autistic diagnostic categories.

Recruitment was limited to children attending mainstream primary schools and aged between 8-12, usually in grades 4-6, and who typically conversed with their parents in English.

Participants on the spectrum were recruited directly through the Olga Tennison Autism Research Centre in Victoria and via existing links of the Queensland researchers, including Autism Queensland. Participants who are not on the spectrum were recruited via contacts from the participating families in the target group. As far as possible, we sought to include participants not on the spectrum who were attending the same schools as the participants on the spectrum.



Perhaps because the study was demanding of family involvement, we had some difficulties meeting our recruitment targets. Our first recruitment drive yielded 15 participants. Under a second recruitment drive the following year, we abandoned the requirement that the children not on the spectrum should come from the same schools as matched children on the spectrum.

#### 2.2.1.2 Participants

Final participant numbers in Part 1 of the project are given in Table 1. Basic demographic information about the participants is given in Table 2.

	On the spectrum	Not on the spectrum	Total
VIC	3	4	7
QLD	8	6	14
Total	11	10	21

#### Table 1: Participant numbers Part 1 of project

#### Table 2: Participant demographic information Part 1 of project

		On the spectrum	Not on the spectrum	Total
Gender	Male	7	2	9
Gender	Female	4	8	12
Age		Mean 9.2 (8.04-12.02)	Mean 10.2 (8.2-11.6)	
SCQ		Mean 23 (16-31)	Mean 2 (0-5)	

Of the autistic participants, one had a diagnosis of "Autistic Disorder" and the remaining ten of "ASD". All but the child with the diagnosis of Autistic Disorder were recorded as having one or two additional diagnoses other than of ASD. These included: Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), Anxiety Disorder, auditory processing disorder, specific learning disability, borderline ID, global developmental delay. Five of the participants who are not on the spectrum were recorded as having an additional diagnosis other than of ASD (one specified as ADD, the others unspecified).

#### 2.2.2 Procedure and data collected

Families who expressed interest in taking part in the study were contacted by a research assistant who arranged to meet with them at the start of a school week.



At the meeting, the research assistant provided the parent(s) with the plain language statement and consent forms, and took the child through a picture narrative explaining the study. Once the children understood the study, they were also asked to consent to participate.

The research assistant provided the parents with a Canon Legria videorecorder, instructions for using the camera, including how to mount the camera in a car, and a pack including information about the study, copies of the SCQ and demographic questionnaire and the parent survey. Parents were also given a copy of the teacher survey to pass on to the child's teacher. Copies of the survey instruments are provided in Appendix A.

Parents were requested to record after school interactions on two typical days in the week, at two times during the afternoon/evening: we suggested that after school in the car and at dinner or bedtime might be good times; any time that the parents thought they would normally be likely to talk about the day with their child.

Around halfway through the week, the research assistant contacted the parents to see how things were going and to provide an additional request: that the parent would use the following prompt in talking to the child about their day. This component was designed to a) ensure that at least some talk about school was recorded and b) to provide some consistency across the family interactions.

#### Prompt scenario:

Can you please set aside at least 15 minutes this evening when you can sit and chat with your child, and ask them the following questions (you can use your own words). We suggest you start with a general question (see below) and then ask some more specific questions about school. The aim is for your child to talk about school and what happened. By using the prompts below we hope your child might be interested in sharing his or her experiences.

Tell me, how was your day? Can you tell me what you did at school? What is the best thing you did? Can you tell me about it? Was there anything you did not like? Can you tell me about it?

When the research assistant returned to collect the recordings, they engaged the child in a videorecorded semi-structured interview designed to cover some of the same topics explored in parent and teacher survey questionnaires.



All 21 parents completed the parent survey. Results were returned by 7 of the teachers who completed the teacher survey. Of the children, two declined to take part in the semi-structured interview, so we have 19 interviews in total. These are of variable quality.

Table 3 shows the number of hours of video-recorded data we collected. Participants are identified by a code. Recording time for each participant ranged from a minimum of 0:25:30 (hours:minutes:seconds) to a maximum of 7:53:39, with an average for non-autistic participants of approximately 1 hour and 50 minutes and for participants on the spectrum of approximately 3 hours and 15 minutes. In total, 50 hours and 55 minutes of video-recorded interaction was collected.

#### Table 3: Video-recorded interactions Part 1 of project

Participant	Diagnostic category	Number of discrete videos	Amount of recording in hours:minutes:seconds
011QTHO	On Spectrum	10	2:36:25
011VPET	On Spectrum	15	3:37:05
021QALF	On Spectrum	8	4:01:00
021VCHI	On Spectrum	7	0:25:30
031QFLY	On Spectrum	4	0:48:22
031VBAY	On Spectrum	15	2:33:45
041QFRA	On Spectrum	6	1:50:34
051QTEN	On Spectrum	9	3:57:08
061QSPR	On Spectrum	20	7:53:39
071QBRA	On Spectrum	13	2:13:22
081QTHO	On Spectrum	9	2:34:47
102QSNO	Not on Spectrum	9	2:32:52
102VAUL	Not on Spectrum	6	1:06:30
202QLAU	Not on Spectrum	5	1:43:05
202VPAT	Not on Spectrum	8	0:30:30
302QBIG	Not on Spectrum	6	1:55:17
302VHAR	Not on Spectrum	11	1:19:15
402QGAR	Not on Spectrum	9	0:46:04
402VMCS	Not on Spectrum	6	0:37:00
502QAQU	Not on Spectrum	3	0:28:00
602QGAT	Not on Spectrum	18	7:25:45
TOTAL			50:55:55



#### 2.2.3 Analyses

#### 2.2.3.1 Survey and interview data

Survey data from parents and teachers was collected using the written questionnaires. The closed questions were analysed quantitatively. Text in the open questions was analysed qualitatively.

Preliminary qualitative analysis of the interviews with the children has been undertaken, with the aim of deriving information relative to the questions of interest. Further thematic analysis of these interviews using NVivo (QSR International, 1999) is planned, as well as analysis of the personal experience stories the children provided in the interviews.

Where possible, pair-wise or three-way comparisons of the parent-teacher-child data is undertaken.

#### 2.2.3.2 Video-recorded interactional data

For the video-recorded conversational data, we were interested in Research Questions 2-4 (see section 1.2):

- 2. What type of personal autobiographical stories do children who are and are not on the autism spectrum tell about their day after school?
- 3. Do parents and children engage in discussion of possible alternative scenarios in talking about school experiences?
- 4. Where do communication breakdowns occur in conversations between children on the spectrum and their families about the school day?

Using the methodology of Conversation Analysis (Sidnell, 2011; Sidnell & Stivers, 2012), we took a data driven approach to the qualitative analysis of these interactions, but in order to address Research Questions 2-4 above, and further triangulate our understanding of the nature of home communication about school, we were specifically interested in questions such as the following:

- How do parents elicit information from children about the school day?
- What characteristics do the children's responses to their parents have?
- Do children initiate talk about school?
- What brings about narratives by children about school?
- What kinds of responses occur to these extended tellings?



- Do parents and children engage in future talk or hypothetical talk about school, and if so of what kinds?
- What kind of troubles arise in the interaction (e.g. misunderstandings needing conversational repair)?
- Are these problems dealt with by conversational repair? If so how / by whom?

The following analytic process was followed:

- A research assistant indexed the recordings for segments where school was a topic of discussion.
- Research assistants who were trained in linguistic transcription did broad transcriptions of the indexed segments using the free linguistic transcription program ELAN (ELAN, 2020) and adhering to standard transcription conventions as listed in Appendix B.
- The first CI on the project completed first stage analysis of the transcribed data, focusing on the following analyses:
  - Preliminary overview of the nature of communication about school between the target child and family members. When and where does this occur in the data? How do parents elicit information from children about school? What kinds of responses do children give? Do children initiate talk about school?
  - 2. Identification of personal experience narratives by the children about school. Do these occur, when and to what extent? What shape do they have?
  - 3. Identification of segments of the conversations where future talk, hypothetical and alternative situations and actions are discussed.
  - 4. Identification of "trouble spots" where the communication goes awry, and how these are repaired, in the context of talk about school.

Detailed, micro-analysis of the conversational data is ongoing. Results of first stage analyses are reported in section 3.

### 2.3 Part 2 of the project

Part 1 of the project yielded 21 parent surveys, 11 from the group on the spectrum and 10 from the non-autistic group. After analysis of the surveys (reported in section 3 below), it was decided to seek the same information from a much larger pool of participants, and Part 2 of the project took place in 2017-2018.



#### 2.3.1 Study Design

Parents in Part 2 of the project completed the same instruments as used for parents in Part 1. An online survey was created using Qualtrix (Qualtrix, Provo, UT). It consisted of the purposedesigned parent survey questionnaire used in Part 1 of the project, an online version of the Social Communication Questionnaire, and an online version of the demographic questionnaire.

#### 2.3.2 Recruitment

Participant recruitment for Part 2 of the project was conducted widely across Australia, in Queensland, Victoria, New South Wales and Western Australia. Project investigators made use of their own networks and contacts, including Twitter and Facebook, as well as advertising the survey through a variety of autism and health organisations.

#### 2.3.3 Participants

Not all individuals who commenced the survey completed all instruments. Criteria for inclusion of participant surveys in the analysis reported here were:

- Participants met study inclusion criteria (that is, parent or carer of an English-speaking child attending mainstream primary schooling in Australia and aged 8-12)
- Participants had, at minimum, completed the purpose-designed parent survey, the SCQ and sufficient questions from the demographic survey for us to identify their location

Three participants in the non-autistic group returned SCQ results within the autism range and so were excluded from analyses. 34 participants from the autism group returned SCQ results outside the autism range and were excluded. 32 participants in the autism group reported that their child had Intellectual Disability, Global Developmental Disorder or Developmental Delay and these were also excluded from analysis.

The final participant cohort consisted of 41 participants who were parents of children who are not on the spectrum, and 234 participants who were parents of children who are on the spectrum. The very divergent participant numbers in each group were managed statistically for the quantitative analyses.



#### 2.3.4 Analyses

Parallel to analyses of the survey data in Part 1 of the Project, quantitative analysis of Likert scale survey questions and inductive thematic analysis of open-ended comment questions using NVivo were conducted.

# 3. Findings

In our discussion of the findings from this project we report first on survey results from the larger survey conducted as Part 2 of the project, and then summarise findings from the surveys in Part 1 of the project. We then turn to preliminary qualitative analysis of the video-recorded conversations.

### 3.1 Survey results from part 2

Parent survey questions are given in Appendix A. We asked the parents to answer the survey questions while "thinking about your child this year at school". Parents responded on a five point Likert scale as to how often their child talks to them about positive things that happen at school and about negative things, and how easy or difficult these conversations are.

Figures 1 and 2 below show the responses for how frequently "my child would talk about positive things that happen at school" and for how often "when something good has happened at school,

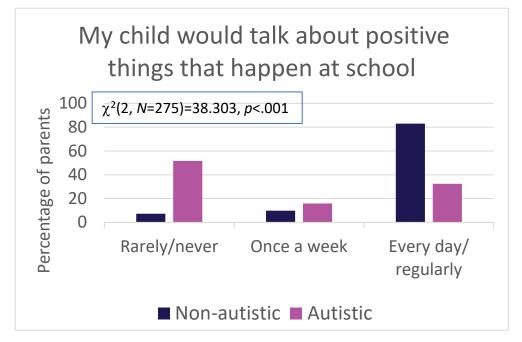


Figure 1: How frequently my child would talk about positive things that happen at school



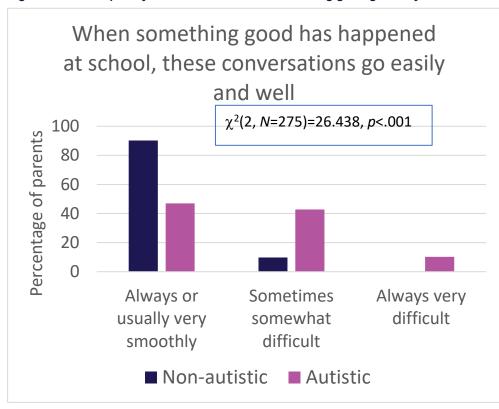


Figure 2: How frequently conversations about something good go easily and well

these conversations go easily and well". Parents of children who are not on the spectrum reported more conversations about positive aspects of school – regularly/every day and always very smooth. Parents of children on the spectrum were more likely to report a lack of talk about positives and difficulty in these conversations. These differences were statistically significant.

Figures 3 and 4 show the responses concerning how often children would talk about problems or negative occurrences at school, and for how often these conversations go easily and well. Unsurprisingly, both groups reported more difficulty in conversations about problematic topics, but with significantly more parents of children on the spectrum flagging that these conversations are always very difficult. There was less difference between the two groups of parents in how frequently children would talk about problems at school, and as we will see later, this may relate to reluctance by some children to talk about problems.

We further asked parents: if the conversations seem difficult, why do you think this is so? Eightyone per cent (81%) of parents of children on the spectrum and 66% of parents of children who are not on the spectrum responded to this question. Thematic analysis of open-ended question answers shows that both sets of parents made reference to children's reluctance to revisit negative events and to children's worry about being in the wrong. Children on the spectrum were more likely to be said to exhibit



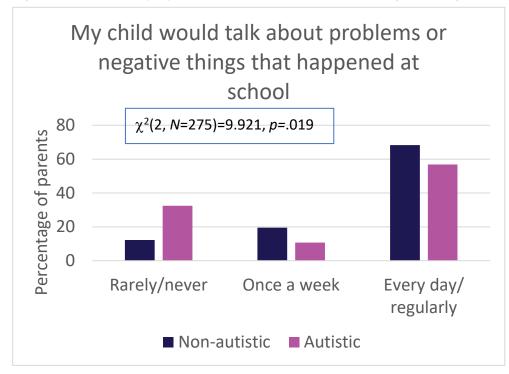
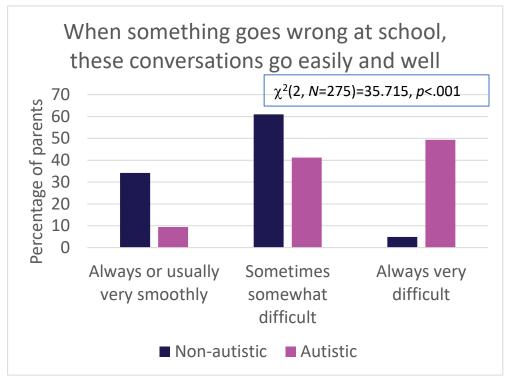


Figure 3: How frequently my child would talk about problems or negative things that happen at school

Figure 4: How frequently conversations about something negative go easily and well



painful emotions of upset, anger or frustration due to issues at school or difficulties communicating about them. Partly, this was considered to be due to a more global difficulty experienced by



parents in communicating with these children. A sample of responses from parents of children on the spectrum is given below:<sup>2</sup>

- "If he has done something wrong, for example been rude to a teacher or hurt a friend he is so
  remorseful and upset with himself that he does not even want to talk about it, even hours later.
  If you attempt to he starts saying he is a terrible person and shouldn't be alive, says he hates
  himself or starts hitting himself in the head. It is better not to push it as he already has a low
  opinion of himself."
- "Doesn't want to talk about unpleasant things."
- "Because he doesn't want to remember the feeling of being in trouble or out of sorts"
- "Hesitant to "get himself in trouble". Will avoid the facts and skim around what really happened. Doesn't always understand why he got in trouble."
- "Reluctant to talk. I think feels shame"
- "Because she is still emotionally involved in the situation."
- "He finds it hard to explain what has happened and if he starts to get upset or cry he tries to stop them emotion and quickly wants to move on"
- "She does not like intense emotion and does not like to have to explain what happened. She does not want to accept my suggestions if there are problems."
- "He has trouble remembering just says it was a bad day or only tells me the worst thing of what happened. Doesn't know why it happened. Then gets upset/stressed about it and says "I don't want to talk about it any more""

Some parents of children who are not on the spectrum also comment that sometimes their child doesn't have the words to tell their side of the story or to express how they are feeling. One parent noted:

"She doesn't want to talk about things that go wrong at school. When I pick her up at school, she will tell me she has had a bad day and will stress that I can't ask her about it until we are away from the school. Then once we are a certain walking distance away, she may tell me, but she will be in a very bad mood about it and if I don't immediately take her side or if I try to discuss it with her such as ask more questions or give her advice she doesn't want to hear, will get more moody and sullen."

<sup>&</sup>lt;sup>2</sup> Here and below, quotes from the survey are given verbatim and typographical errors are not corrected.



Parents of children on the spectrum comment in much more detail and more frequently on difficulties in communication, and report having to work hard to manage the conversation and to find out what has happened. One parent commented that working out what had happened is "like putting a puzzle together". Another said:

"My son is emotionally charged & overwhelmed about the negative situation and I try my best to console him but he finds it difficult to see situations from a different perspective. Given his social limitations I find it difficult to give the right advice. The outcome of the conversation is usually the same, he doesn't fully grasp what I am saying and the following day he will again have a negative exchange with other kids, which will further discourage and upset him. I wish I had more tools as a parent."

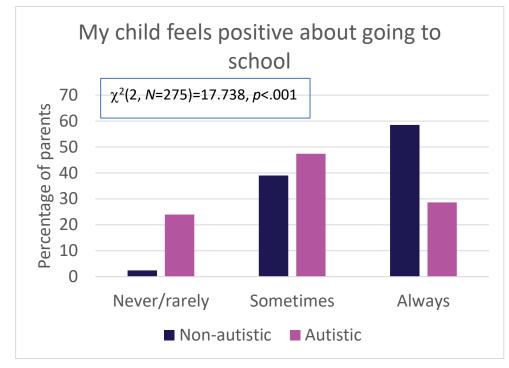
Additional sample quotes from parents of children on the spectrum focusing on the overarching communicative difficulties are given below:

- "He doesn't offer any information without me questioning him, and sometimes I don't know exactly what questions to ask."
- "It is always about HOW questions are asked and sometimes I have to adjust my question, or explain something about my question."
- "He finds it hard to follow the sequence of events as they happen and he often misses out vital pieces of information that you have to know the right question to ask to understand what has actually happened and the order it happened in. Kind of like gold mining without the metal detector. You have to ask questions around the info he did think to share."
- "You have to keep asking different questions until you ask one that he finds acceptable (safe) to answer, ie : the answer is not going to get him in trouble or the answer may exonerate him. Some times you can't get to that point, and you have to use an ultimatum or consequence in order to get any thing from him"
- "The conversation when she recalls to me usually starts at the end. "I was strangled today!" I
  have to tease the who what when why out and get her to start at the beginning. She thinks i
  know all the details what she knows already."
- "Usually because my child is overwhelmed with emotions and mostly anger, sadness or anxiety when something has been a challenge at school. Sometimes cannot convey the whole story in detail because emotions take over or can't remember due to be being so overwhelmed. I then try to ask the teacher or class peers who are closer to my child if they are aware of the event to clarify better understanding and try to resolve together."



- "He doesn't like me asking about his day at school because saying its good isn't exact. I have to wait for him to come to me when he's ready or ask specific questions that don't required summarising whether it was a good or bad event"
- "Our son does not always recall the specific details of what happened, as in who did what to him. He assumes that we have prior knowledge in regard to the situation and location."
- "Reluctance to voice what happened to him, often may take a few days to find out what happened either good or bad."
- "Doesn't always understand "what went wrong" or why it happened, details patchy and out of sequence, like putting a puzzle together."

In response to questions about whether their child feels positive or negative (nervous or anxious) about going to school, parents of children on the spectrum were more likely to report their child was negative (nervous or anxious) about going to school while parents of children who are not on the spectrum generally reported their child to be positive about school. Figures 5 and 6 show the results for these questions. The discussion of the videorecorded after school interactions from Part 1 of the project are consistent with these findings, in that of the 21 children participating in this study, the children who are not on the spectrum as a group were more likely to speak positively about school in the interactions recorded (see section 3.3).



#### Figure 5: How frequently my child feels positive about going to school



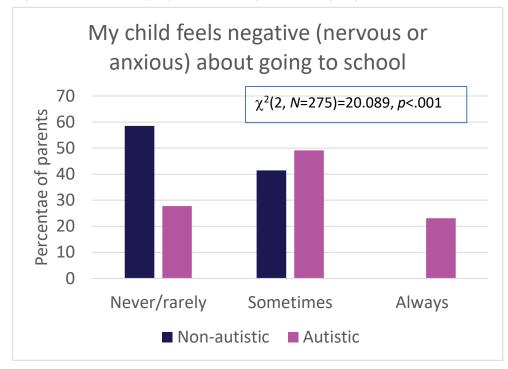
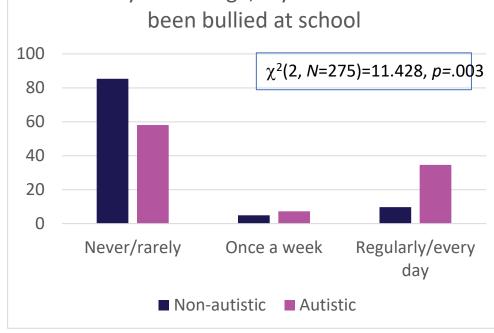


Figure 6: How frequently my child feels negative about going to school

The survey asked parents specifically about bullying. Parents of children on the spectrum indicated significantly higher frequency of bullying, and although almost the same frequency of references to bullying arose in the open-ended questions for the two groups of parents, the parents of children on the spectrum reported more serious incidents. Figure 7 shows the results.







Comments on communication about bullying included a number of parents of children on the spectrum reporting that their child might not recognise a situation as being bullied. Parents of children not on the spectrum made more reference to strategising with their child about what to do. However, both groups of parents indicated that they brainstormed with the child about school (as in the example given below) and Figure 8 shows that there were no significant differences in reported frequencies for brainstorming about problems at school – this was only one of two non-significant comparisons between the groups.

Parent of child on the spectrum: "I ask my son if there was anyone at School that he would like aliens to abduct today? When he nominates a person we discuss why he wants that person abducted and we make Plan A, B for dealing with whatever has happened. He never requests my assistance and I then ask the same question the following days to see if the same person is nominated."

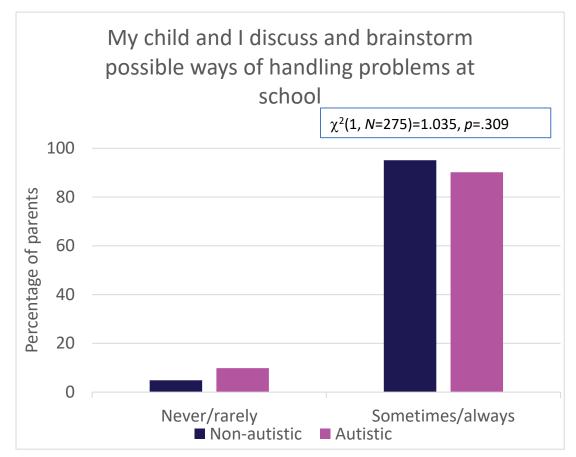


Figure 8: Frequency of brainstorming problem solving with my child



We also explored parents' overall perceptions of the quality of the communication they have with their child about school. We asked parents about how often communication with their child about school was easy, and to rate the overall ease / difficulty on a scale from 1-5. Here there were highly significant differences between the groups and large effect sizes. Overall, parents of children not on the spectrum reported that it was always easy to communicate with their child about school and there were no problems with this. More parents of children on the spectrum reported difficulties with communication about school – nevertheless, around 25% of these parents indicated no or few problems communicating about the school day and 34% gave a middling response. See Figures 9 and 10. These results and this range of variation is consistent with our findings from qualitative analysis of actual recorded after school conversations with children in Part 1 of the project (see section 3.3).

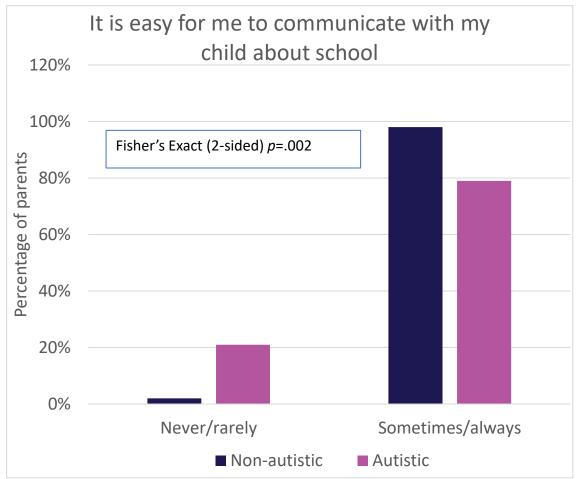
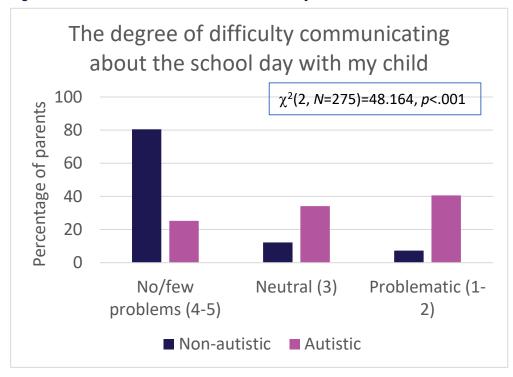


Figure 9: How often it is easy for me to communicate with my child about school





#### Figure 10: How difficult it is to communicate with my child about school

# Summary: communication about school - "making a conversation fluid is difficult" (parent of child on the spectrum)

Qualitative analysis of open-ended comments on discussion of troubling events, reported above, showed that both groups of parents reported that their children could be reticent and avoid talking about troubling events, whether because these are emotionally challenging or to avoid blame if things have gone wrong. This resonated with the findings from the child interviews in Part 1 of the project, which are discussed later in section 3.2 - children from both groups expressed reluctance to share events with various categories of people. It also came up in analysis of some of the conversational data. For example, for participant 402QGAR (not on the spectrum), when the child's mother asked the prompt question about whether the day had been good, the child first gave a "stock" positive answer ("good"), which the mother then queried and pursued – it turned out that the time period in question had been pretty dramatic with the child being very unwell and missing out on normal activities. As we shall see in section 3.3, a number of children overtly refused to talk about problems in their after school interactions with parents, or needed careful handling before they would eventually reveal what had happened.



Parents of children on the spectrum attributed difficulties in communication about school to:

- General problems with communication
- Cognitive difficulties such as with sequencing of events
- Greater likelihood of the child exhibiting emotions of upset, anger or frustration due to issues at school or due to difficulties in communicating

Aligned with what we have already seen from the analysis of comments concerning talk about problem events, in their general comments on communication about school, parents of children on the spectrum reported that they needed to elicit information gradually and to pick their time – this was something mentioned far less frequently by the parents of children not on the spectrum, although some commented that they find it best to wait for their child to open up about school, especially with respect to particular concerns.

One theme which came through clearly from all the open-ended comments was the agency and intentionality of communication and the work put into this by the parents of children on the spectrum. These parents reported a range of strategies they had developed:

- Intensive monitoring of children's behaviours
- Designing outside school interactions so that time and place maximise the child's ability to communicate, based on their evaluation of the condition of the child
- Care in approaching topics and eliciting information
- An awareness that the child may need time to process incidents and might not be able to talk about them right away

In contrast, the agency and work required of parents of children not on the spectrum in ensuring they understand their child's experience at school does not come across so strongly.

Representative comments from parents of children on the spectrum include the following.

- "he needs to be in a relaxed environment to open up."
- "All depends on the questions asked"
- "When [CHILD'S NAME] first comes home from school no one can talk to him. He's like royalty you wait till you are spoken to before you can speak to him. I don't normally get to hear about his day from him I learn about his day from his teacher or younger sister."
- "Once my son is home he does not want to discuss school. My son says talking about it is stressful and upsetting. He thinks I should mind my own business as school is his business my son is very private."



- "Sometimes it may take a few days for my child to share his experiences at school as he needs to process the feelings first or he tries to deal with it himself before reaching a point where he needs to talk"
- "I feel upset that I really don't know what he does at school I feel sad that he never tells me anything about school good or bad"

Some parents reported specific strategies they had developed, for example see the quotes below.

- "Conversations about my child's day at school is always prompted by questions I've been asking since Prep.
  - Did you have a happy day
  - what was your best bit
  - what was your hardest bit
  - what was something your teacher said

If I didn't ask these questions, I wouldn't be able to know how his day was."

- "We started a rose and a thorn each afternoon a good and a not so good part of each day he engaged well with this and is now excited to tell me what each days rose is. Last week we discovered that a thorn was some issues with friends at lunch time which gave me an opportunity to discuss with his teacher and [NAME – PERHAPS OF AIDE] the next day quickly eleviating the issue :)"
- "When my son started school talking about his day was an issue but over time (he is now in Year 6) we have practiced conversations and he is able to tell me things he has enjoyed/not enjoyed that day (emphasis on the not enjoyed)."
- "It has taken time and consistency to checking in and asking a myriad of questions to find out how their day went. Rather than just asking how was your day. I ask who you sat with at lunch time while eating? Did you play any particular type of game? Did you go to library, oval etc? Anything special happen? Anyone upset today. Did the teacher yell a lot today? So I can see how they coped with classroom noise levels? so many varied question I ask to check in with my child. Being of normal language capabilities at age 10 it is certainly easier than prior to age 5."
- "I have also tried many different ways of asking about how the day went by asking different questions which I found online. Sometimes these might be effective....like, 'What made your teacher smile today? What made her frown?' and, 'Was there anyone missing from your class today?'"



 "Two months ago I purchased a communication book for the teachers to write in for the afterschool carers and myself to read so that we could find out if my son had a "hard day" and any specifics. The teachers havent written in it once."

We know that even when children on the spectrum are very young, parents work hard to become synchronous with the child – it is the parents who do the work to make the interaction work (Hudry et al., 2013; King et al., 2006). The need for this intensive work has been shown to relate to high levels of stress and distress in these parents (Maynard et al., 2016; Seltzer et al., 2001).

### 3.2 Survey results from Part 1

Results from the online survey undertaken in Part 2 were generally consistent with what we had found for the smaller parent survey undertaken in Part 1 of the project, in which the 21 parents answered the survey by hand, and we do not report these results in detail here. In this group, parents of children not on the spectrum consistently reported easier communication with their children about the school day, however parents of children on the spectrum gave relatively positive reports about school communication also, stating it was "sometimes" or "always" straightforward, despite a mean rating of difficulty several points higher on a Likert scale.

In Part 1, parents were asked to pass a teacher survey on to their child's classroom teacher, and seven of the 21 teachers replied to this. Despite the low numbers, it was interesting to compare the views of these teachers with those of the parents. The teachers who responded reported comparatively few difficulties over communication about school and made generally positive assessments of the children's behaviour. Both parents and teachers reported minimal bullying of the children, but teachers reported bullying less frequently than parents.

Most of the 11 children on the Spectrum from Part 1 of the project had an integration aide at school, but a majority of their parents reported that they had never met with the aide. While half these parents reported using a communication book, only one felt that it worked well – comparatively, the smaller number of teachers who responded were positive about the value of the communication book.

#### Qualitative analysis of child interviews

Nineteen of the children who took part in Part 1 of the project completed a semi-structured interview with a research assistant at the end of the week of data collection. Research assistants



were asked to use the prompts in Appendix A to get the conversation started but were instructed to avoid "leading" the children. The interviews were video-recorded and transcribed for subsequent qualitative analysis. However two of the interviews with children on the spectrum were sufficiently challenging that they were not useful for analysis.

In general, the interview data reflected aspects of what had been happening during the week of data collection.

Qualitative analysis of the interview data is still to be finalized, but preliminary analysis suggests some differences can be tentatively drawn between the children who are and the children who are not on the spectrum.

The nine children on the spectrum who were interviewed listed things they liked about school, including specific subjects or activities, and two of the nine mentioned playing with friends. Four did not articulate anything negative about school, while the remaining five mentioned noise or boredom or specific subjects or teachers or changes of teachers and being thwarted in their ability to do something; one child mentioned "a meanie".

In contrast, of the ten children not on the spectrum interviewed, six explicitly mentioned friends as "good" aspects of school, with other positive things mentioned including special events of various kinds or specific equipment or subjects. A few of these children were extremely positive about everything about school (something not seen in the group on the spectrum). Things they didn't like about school included "mean people" or interpersonal conflicts in four cases; most children did not report a lot that they didn't like about school but some mentioned specific subjects or types of event.

Overall, there was a tendency for social and relational aspects of school (friends and "mean kids") to be mentioned as both positive and negative among the non-autistic group, whereas although some of the children on the spectrum talked in the interview (as well as in their after school chat) about friends, they tended to focus more on the institutional, rule-based aspects of school as negative.

As indicated earlier, many children from both groups said they might not tell people about good or not so good things that happened at school. (Recall the comment from one of the parents in the online survey who said their child thought some things were too "private" to talk about.) Most of the children on the spectrum gave cautious and qualified answers about whether they would share either good or bad things that happened at school, and only four gave an unqualified "yes" answer to the question of whether it helps to talk about things. Several were not confident that their parents



wanted to know. All the children who are not on the spectrum said they would tell others about good things, however some qualified this by saying that they would tell their friends only and some nominated certain kinds of things they wouldn't talk about. Asked about sharing bad things, there was more caution expressed – six of the ten children who are not on the spectrum gave a qualified answer about this and talked about it depending on the kind of thing. A number said there were things they would not talk about because they were personal or too special or too minor. However all but one agreed it was good to talk about problems and all but two agreed that their parents wanted to know about problems so they could help.

Asked who the preferred recipient of news was, the child's mother was most mentioned for the children on the spectrum, and sometimes a teacher or aide. This resonates with a comment made by a father to one of the researchers, to the effect that he would like to be more involved but that this was difficult because of the sheer family logistics of the day. Two children mentioned telling friends good things and one mentioned sharing bad things with friends. For children not on the spectrum, most mentioned quite a long list of people they would share good things with, including parents, and in some cases siblings or other family members; there was variation in whether teachers were mentioned. The children not on the spectrum were much more likely to talk about sharing bad things with their friends (because they understood and could help them feel better), with some talking about telling teachers because of their authority to act but others explicitly excluded family.

Some representative quotes from the children are given below.

- "cos I like to keep things a secret", and asked if mum would like her to talk about things "not really" [girl, on the spectrum; 10 years old]
- Mother (present at interview): "would you tell me if you went on time out?" Child: "no" [boy, on the spectrum; 10 years old]
- "eh Mummy I only just tell Mummy about the good things and the hard things" [girl, on the spectrum; 8 years old]
- Do they share something good?: "well? Unless they were there when it happens but I just keep it a secret sometimes". Why? – "I don't really know" Asked for an example of something good that they wanted to keep a secret – "I can't remember". [girl, on the spectrum; 8 years old]
- "sometimes I would tell em about it but depending on what it is. Sometimes it might be a bit TOO special to me and I don't want anyone to find out I have it otherwise they might try n steal it" [girl, on the spectrum; 9 years old]



- "I'd keep it to myself unless if I'm like at school with crutches n someone asked me how it happened" [girl, on the spectrum; 9 years old]
- Does it help to talk?: no, he would prefer to keep things to himself, "some things might be personal" [boy, not on the spectrum; 10 years old]
- sometimes "I just don't tell anyone" Why? "I dunno; not relevant; doesn't really matter; not a big thing" [girl, not on the spectrum; 11 years old]

#### Summary:

- Both the surveys in Part 1 and in Part 2 of the project indicated significant differences in the perceptions of parents of children who are and children who are not on the spectrum concerning the ease or difficulty of communicating with their child about the school day.
- The studies also painted a picture of clear differences in the lived experience of the two groups of parents.
- The child interviews from Part 1 were informative about the children's views on who they were happy to talk to about school and what types of events they felt comfortable sharing but more work needs to be done here. In the interviews, children who are not on the spectrum were more likely to mention social issues as problematic at school; children on the spectrum were more likely to mention institutional issues and procedural fairness. This aligns with some of the discussions that children were observed having in their after school conversations with parents (see section 3.3).
- From the limited data available from Part 1, there was some indication of differences between parent and teacher perceptions, however the numbers of respondents are too small to be meaningful here.
- There is further scope for comparison of the actual communication recorded for families who took part in Part 1 of the study with what the parents and the children report about it in the survey and interview data.

### 3.3 First phase analysis of video-recorded conversational interaction

All 21 families participating in Part 1 of the study recorded after school interaction on at least two separate days in the school week, and over at least two distinct periods of time. A number of families recorded much more interaction than this, up to six days during the week. Family interactions occurred in contexts including car trips home from school, after school snack time or



homework time, family dinners, and pre-bedtime conversations. In addition to the target child and at least one parent, siblings, other family members such as grandparents or aunts, and occasionally other children, were also present in a number of conversations. In total, approximately 50 hours of recordings were collected, providing a rich repository of information about how families interact after school.

As indicated in section 2.2, the first phase of analysis of these data involved indexing which segments of the videos included talk about school, and linguistic transcription of those segments. Table 4 shows the amount of video-recorded data judged to be "about school" and therefore transcribed for analysis, from each family. In total, ten hours and fifty minutes of data were transcribed.

Unsurprisingly, given the context of the study, we found that all the families did talk about school at the end of the school day, and all the target children participated in such conversations. There was, however, a very wide range of variation in how easily these conversations flowed, in the amount of talk about school which occurred during the recorded interactions we had access to, and in the quality of information which parents and carers were able to glean about the school day from their interactions with the child. Below, we comment on a number of themes which arose from our preliminary qualitative analysis of the data. Although we have a large amount of data in terms of the amount and variety of conversations recorded, the relatively small number of participants (11 in the autistic and 10 in the non-autistic group) and the wide range of variation within each group means that our observations are necessarily exploratory and it is difficult to make generalisations. First pass coding and analysis of the conversational data was done by the first CI on the project and the initial coding was done blind to the child's diagnosis.

#### Factors favoring or disfavoring easy conversation about the school day

**Car trip and technology.** Many parents opened the topic of school on the car trip home in the afternoon, and were perhaps encouraged to do so by our suggestion that they might use this as one recording context. On some occasions the children talked a lot about their day during these trips home. However many children were relatively unresponsive in this context, even if they were more talkative later in the day. The presence of multiple children in the car, the children's access to electronic devices (which had perhaps been set aside during school) and the distribution of after school snacks all interfered with conversation. One observation to be followed up in future analyses was the unusually long pauses tolerated between adult questions and child responses on these car trips. It is generally considered that pauses of longer than about 1 second are treated as problematic in everyday conversation (Jefferson, 1989; Gardner & Mushin, 2015), but there were



Participant	Total video recordings in minutes	Video data about school transcribed in minutes	% of Total video recordings transcribed
021VCHI	25.5	25	98.0
502QAQU	28	11.5	41.1
202VPAT	30.5	30.5	100.0
402VMCS	37	28.15	76.1
402QGAR	46	15	32.6
031QFLY	48.25	17.25	35.8
102VAUL	66.5	50	75.2
302VHAR	79.25	49.9	63.0
202QLAU	103	18.5	18.0
041QFRA	110.5	38.75	35.1
302QBIG	115.25	46	39.9
071QBRA	133.5	11.5	8.6
102QSNO	153	59	38.6
031VBAY	153.75	25.5	16.6
081QTHO	154.75	15.5	10.0
011QTHO	156.5	9.25	5.9
011VPET	196.5	50.5	25.7
051QTEN	208	18	8.7
021QALF	210	15	7.1
602QGAT	445.75	26.25	5.9
061QSPR	473.5	89	18.8
TOTAL	2975 (49 hours 35 minutes)	650.05 (10 hours 50 minutes)	21.9%

#### Table 4: Amount of video-recorded interaction and transcribed segments about school



numerous instances in these interactions of substantially longer pauses. The fact that the parent was simultaneously engaged in driving may have impacted on this. An example is given in extract 1 below.<sup>3</sup>

Extract 1 – girl on the spectrum, 10 years old, in car after school with mother and sister

067	mother:	so how was y'day?
068	child:	(0.2) me:::h,
069	mother:	(0.8) really?
070	child:	uh huh
071	mother:	(0.6) what's me:::↓h?
072	child:	(1.1) ((makes joo [joo noises]))
073	mother:	[what does ] that? mean.
074	child:	(10.5) ((does not respond, playing with iPad))
075	mother:	Does that mean there were cows in your classroom?
076		me:::h,
077	child:	(5.4) ((target child does not respond, playing with
078		iPad))
079	mother:	((sings along to song on the radio)) (14.5) ((no
080		interaction)) are you tired today.
081	child:	(4.4) ((target child does not respond, playing with
082		iPad))
083	mother:	You're both very quiet.
084	child:	(3.3) ((target child and sister do not respond,
085		playing with iPad))
086	mother:	did I give you enough food in your $\downarrow$ lunch-box. (1.0)
087		is that why you're both so quiet.
088	C8hild:	(9.2) ((target child and sister do not respond,
089		playing with iPad))

**Siblings.** For many families, the presence of more than one child meant that easy informative conversation with the target child was complicated by siblings interrupting, playing up or the need for the parent to deal with interactions with more than one child at once. Often, when the parent

<sup>&</sup>lt;sup>3</sup> Names have been replaced. In speaker attributions, "Child" always refers to the target child in the project. Transcription conventions are listed in full in Appendix B. Figures in brackets, e.g. (0.2), refer to length of silences in tenths of a second. Transcriber comments are given in double brackets (( )).



was able to set aside a space of time with just the target child (often in the context of the prompt questions session), the conversation flowed much more freely.

**Prompt questions.** A number of parents commented either on tape or in feedback to the researchers that use of the prompt questions led to a much greater and freer exchange of information about school than usual. This may have been because they set aside quiet time with just the target child to undertake this part of the task. An example of such a comment made by the child's mother after the prompt session with the child and the father is given in Extract 2.

**Extract 2** – boy on the spectrum, 9 years old, day 3 of recording, mother and father at kitchen table with child, having just completed prompt question session

828	mother:	alright c <u>oo</u> l. (1.1) that was really good, (1.3) you
829		answered lots a questions about school. (0.9)
830	father:	°m(h)m°
831	mother:	(0.3) that's the most we(h)'ve e(h)ver ta(h)lked
832		abou(h)t schoo(h)l heheheheh (1.1) ((rubs child's
833		head))

**Mood and emotion.** It was very evident that many children were reluctant to talk about what happened at school if this related to negative experiences or incidents, and it is possible that the presence of the video-camera may have exacerbated this in some cases. This applied to both the autistic and non-autistic groups. Parents were very aware of their child's mood and highly sensitive to when to stop the discussion before the child became too emotional. There were a number of instances where the full story of something upsetting only came out over time, and in some cases an incident was discussed over multiple days.

Some examples are illustrative here. Extract 3 shows how it gradually emerges on a car trip home that something bad has happened in P.E.

**Extract 3** – boy on the spectrum, 10 years old, day 1 of recording, in car with mother and grandfather after school

068	mother:	[it'll cool down. ] (0.5) what did you do
069		in f in P E.
070	child:	(1.4) I: $\circ$ s $\circ$ (.) we did some stuff? like some stuff,
071		and stuff and [•some stuff•]



072	mother:	[ and stu]ff great. (0.6) would you
073		wanna be a bit clearer on what the stuff is? coz I- in
074		P E I think you can do lots of stuff
075	child:	(1.5) ((playing with seatbelt)) $\circ I \circ (0.3) I [() )]$
076	mother:	[what
077		sorta] stuff like (0.4) rope (.) jumping, running,
078	child:	(0.9) I: am not clear. (0.5) $\circ$ (I'm not) really clear.
079		a[bout it• ]
080	mother:	[you're not] clear because you're hot and you're
081		bothered?
082	child:	(4.2) ((sits up in seat and seems to look out back
083		window)) ((trills lips)) (2.9) ahhh. (1.7)

#### ((section omitted - talk about other things and lots of silence))

174	mother:	[was there a]nything about your day today that you
175		didn't like? at all?
176	child:	(0.4) .t (0.3) P E.
177	mother:	(0.6) which one?
178	child:	(0.5) P E.
179	mother:	$_{\uparrow}P$ E. heh haw (0.2) or is that why. (1.1)
180	grandpa:	((coughs))
181	mother:	why didn't you like P E what was happening.
182	child:	((leans back in seat and faces window)) $\circ$ er just
183		classified please I don't [like to tor $\circ$ ]
184	mother:	[what was that I] can't hear
185		you.=
186	child:	=CLASSIFIED I DON'T WANT TO TALK ABOUT [IT ]
187	mother:	[↑cl <u>a</u> ss]ified.
188		you don't wanna ↑t <u>a</u> lk about it
189	child:	( ) [( )]
190	mother:	[why. becau:]se (.) becau:se
191	child:	↑I JUST DON'T=
192	mother:	=[you jus]
193	child:	=[FEEL LI]KE I:T
194	mother:	because you got h <u>o</u> t? (0.4) or because it was tricky.
195		(0.7) or did you have a spack attack. (1.5)



197 mother: [usually when] you don't wanna talk about it it's 198 because you've had a meltdown. did you have a bit of a 199 meltdown about something. (1.5) did you [meltd-] 200 child: [CLASSI]fied. 201 mother: (0.3) .t haw •haw•(0.6) didja •m• (.) did[ja ] 202 child: [(I'm] this 203 time [( )] 204 [I ↑know] you're saying classified (.) but [I'm ∘( )∘] mother: 205 child: [this time 206 I'm] never going to tell you thi[s time.] 207 I kn]OW. but you know I mother: [ 208 [normally] 209 child: [ since I]'ve grown up (0.3) ↑I'VE (0.5) I:= 210 =I've lear- I [know you've]= mother: 211 child: [°I've° ] = 212 mother: learnt to say classfied. (0.5) 213 child: yes. (0.7) but [I'm plan ] = 214 mother: [here's [NAME OF SIBLING]] = 215 child: =that you I can never talk. (0.4) •to-• (0.4) about it.

Extract 4 is another case where the full story of what happened at school on a Monday comes out and is talked through by the child and his parents over the course of a number of days. The events related here are an example of the "social vulnerability" described by Sofronoff et al. (2011).

Extract 4 – boy on the spectrum aged 10

[1] Day 1 of recording: it becomes clear from the discussion in the car after school that he is very angry and upset because he believes he has been given a formal behavioral sanction by his teacher (the child uses a distinctive name for this sanction; we refer to it as FBS here). It turns out that he has gotten into trouble after his friends have dared him to do something problematic on a school trip.

001	child:	((camera being set up in car)) mum (0.4) what do you
002		think I should do to her first. $(0.4)$ stab her in the
003		head or deep fry her.
004	mother:	$_{\downarrow}$ mm well I don't think any of those are very good
005		ideas are they.



006	child:	(0.4) no <u>o</u> ne of them will be good. (2.7) ((camera
007		facing child playing on phone, brother in backseat of
008		car and mother in driving seat, both partly visible))
009	mother:	$_{\uparrow}$ so do you wanna tell me what happened at school?
010	child:	(0.4) $\downarrow$ why would I.
011	mother:	(.) s (.) well (0.3) coz you're really angry, (1.0)
012		and (0.5)
013	child:	ah I've got an FBS? (0.3) for one, (2.5)
014	mother:	you've got an FBS.=
015	child:	=y <u>e</u> s.
016	mother:	what she said you've got one,=
017	child:	$=Y\underline{E}S=$
018	mother:	= $\uparrow$ okay, $\uparrow$ alright? (1.7) so how did that (.) how did
019		you get it. like what happened.
020	child:	(0.4) at the end of school, $(0.4)$ and then I got told
021		off again because all my lunch box fell out, and then
022		I was like (0.7) $\circ$ eh for $\circ$ (0.3) $\circ$ f:or <u>F</u> $\circ$ sake.
023	mother:	(.) •aw• (.) •right• remember language, (0.9) I know
024		you're really angry, (2.1) so (0.6) how was the trip.
025	child:	(0.4) terrible. (0.7)
026	mother:	(was [it.)]
		[lines omitted mainly concerning interruption by
		brother]
041	mother:	heh yeaheheheh (1.8) so the trip wasn't good at all?=
042	child:	=NO. (2.4)
043	mother:	do you wanna tell me what happened on the trip?=
044	child:	=NO:WAH
045	mother:	alright? okay. (12.6) so your friends were daring you
046		you said.
047	child:	(0.7) Y <u>E</u> S.
048	mother:	(3.4) and was this on the trip or when you got back to
049		school.
050	child:	(0.9) TRIP

Mother and child continue to talk about the incident as mother tries to establish exactly what trouble the child has gotten into, the child continues to talk angrily about the teacher and to make threats as to what he will do to her, and the mother tries to talk him down.



[2] Later, in the kitchen at home, the discussion continues along the same lines.

[3] Later, Father comes home and the story is told again, with Father taking a stronger line about the child's behavior.

```
321
      father:
                    [how was your trip]
322
                               I winn:]ed. (0.4) ((runs into room holding a
      brother:
                    Γ
323
                    device)) I
324
                    [ terrible ]
      child:
325
      brother:
                    [winned thi]s game.
326
     father:
                    I won this [game.
                                               1
327
      mother:
                               [•you won this g]ame.•
328
      father:
                    how was it?
329
      child:
                    iterrible.
330
      mother:
                    oright [[NAME OF SIBLING] ↑do you wanna take it out
331
                    there]=
332
      father:
                            [why was it terrible.
                                                                   ] =
333
      mother:
                    then so you can (.) [listen to it
                                                           1
334
      child:
                                        [I don't even wanna] talk about
335
                    it's so bad. (0.7) ((brother walks out of room))
336
                    ↓ • (worst thing.) •
337
                    (1.4) ((mother and father look at each other, father
      father:
338
                    shrugs, mother tightens lips)) hhh (0.3) o(alright)
339
                    (0.9)
340
                    do you wanna tell dad now you're a bit calmer?
      mother:
341
      child:
                    (.) ((shakes head, lips pressed together)) [mm mm
                                                                          1
342
      mother:
                                                                [dad's not]
343
                    gonna be an[gry. okay?]
344
      child:
                               [mm mm:
                                         ] mm ((nods, then shakes head))
345
                    what happen:ed (.) [you got told
     father:
                                                          ] =
346
     child:
                                        [((shakes head)) mm] =
                    off, (1.3)
347
      father:
348
      mother:
                    but you (ge) [CHILD'S NAME] you gonna have to tell dad
349
                    [okay,
                                           1
350
      child:
                    [((shakes head)) ↓mm mm]
                    well one of ya's gotta tell me, so what (0.5) ((child
351
     father:
352
                    accidentally knocks drink bottle onto floor)) is it.
                    (.) •↓mm (forgots) •=
353 child:
```



354	mother:	= pick your drink up (0.9) he (0.5)
355	brother:	((from other room)) BAH hoo. (0.6)
356	mother:	miss [TEACHER NAME] said $\circ h \circ$ she gave him an FBS but
357		(.) we're not sh (.) I'm not sure if sh:e definitely
358		has, or not. but (1.1) I'm not really sure (0.7) why
359		she gave him (1.0) an FBS, (1.2) because um (0.3) m not
360		sure [CHILD'S NAME] said that (0.6) his friends were
361		d <u>a</u> ring him: to do (0.6) I don't e- (.) I don't know
362		what
363	child:	(0.4) $\downarrow$ rolling around on the
364		[floor and stuff ]
365	mother:	[rolling around on the floor:] so- (.) did you get an
366		FBS for th <u>a</u> t? (0.3) or was it a number of things.=
367	father:	=•he was just• probably [acting s <u>i</u> lly. ]
368	child:	[(every number)]
369	father:	(1.1) •well• (.) just don't act s <u>i</u> lly.
370	child:	this morning I had a bad mood, ∘↓in the∘ school I had a
371		bad mood (0.2) [ <u>a</u> nd after school ( ).]
372	father:	[I kn <u>o</u> w you're in a bad mood,] but (0.4)
373		if you're going to act [silly at school, ]
374	child:	[I'VE BEEN IN A BAD MOOD] (0.9)
375		((chewing food)) <u>a</u> ll t <u>i</u> me. (1.0)
376	father:	$\circ$ yeah $\circ$ but you wasn't in a bad mood when you was acting
377		silly to get told off, (1.3) you know? (0.6) how many
378		times do we tell you. just (0.7) if you're gonna act
379		like that at school you're gonna get in trouble. (4.7)
380		$\downarrow$ (you know) I have to tell you when we play football or
381		<u>a</u> nything. we have [to tell you ( ).]
382	child:	[I'm gonna be a w- ] (.) u:m (0.3)
383		next Monday I'm gonna be a one man stabbing machine.
384	father:	(1.7) ((looks at mother)) ehhh. (2.8)
385	child:	now you br <u>ou</u> ght it up again. n I have to be angry about
386		[it again. ]
387	mother:	[nah you're] calming down. you're a lot
388		[calmer than you were.]
389	father:	[you <u>a</u> re calming down.] (.) but I: had to say
390		something, (2.9) ((child walks over to shelf and grabs



392 mother: until we hear from mrs TEACHER[NAME 1 393 child: [get ready] to be drawn. 394 (0.8)395 mother: don't draw on me, (0.3) 396 don't. •be•cause it's permanent marker. (0.6) father: ((monotonous and nasal)) I don't care if it's permanent 397 child: 398 marker I'll say (0.4) I'll say (0.4) I ruined [CHILD'S 399 NAME]'s life. (1.0) [nah I'm gonna] 400 mother: [who ] ME, 401 child: no. (1.0) well you did tell dad but (0.3) 402 I I have to tell dad. (0.4) mother: I'm gonna (0.4) 403 child: 404 mother: o[kay? 1 405 ) this per]manent marker and say (0.3) you child: [( 406 ruined my life. (0.6) my life, (0.6) is completely 407 stupid. coz I have a teacher (0.6) so (0.5) you're blaming your teacher, (0.3) for (1.4)408 father: 409 telling you off for acting silly, 410 child: yep. 411 father: (0.5) yeah? (0.8) [but whose f:] 412 child: [hmm hmm. 1 413 (1.0) but if you wasn't acting silly what would've father: 414 happened. 415 child: (0.4) she would a still told me off= 416 father: =I: don't know. (1.6) when we moan at you for shouting 417 or acting silly, (.) we do it because that's what 418 you're doin (0.8) when you're not doin it we don't moan 419 at you do we. (0.7) same goes for school and teachers. 420 (1.0) when you're AT SCHOOL, it's just the same with 421 being at HOME, (0.4) but your tea[cher's in charge.] 422 child: [no it isn't 1 423 yes it is. (0.2) but (w) stead of us (.) tellin you father: 424 (0.6) ((leans over and picks up shoes)) how to do stuff 425 and what to do? you (0.4) teacher does. (0.8) it's just 426 the same at home. you gotta listen to them just like 427 you lis: listen to us. ((walks into other room, puts away shoes)) 428



[4] Two days later, the topic comes up again as child, Father and brother are eating dinner at the kitchen table. At this point the child has done the punishment involved in the FBS and has calmed down about the incident – his parents are still working to help him to process it.

614	father:	so the big question is (3.7) $\circ$ what was $\circ$ PBS.
615	child:	(0.5) huh? ((while drinking))
616	father:	(0.4) what was PBS.
617	child:	(1.7) just writing down piece a paper in a room.
618	father:	(0.9) yeah?
619	child:	(0.7) mm: ((while drinking)) (0.8)
620	brother:	((growls)) mm(gh) (1.7)
621	father:	hm so all that worrying, $(1.8)$ (sore bellies) you were
622		getting last night,
623	child:	er I literally did, (7.3)
624	father:	((with mouth full)) make (0.8) sure you don't get
625		another one.
626	brother:	((referring to toy dinosaurs sitting in front of him))
627		these three dino[saurs are ]=
628	father:	[otherwise I'll]=
629	brother:	=bad g[uys. ]
630	father:	[give you PB]S when you get home.

[5] When the mother comes in, the same discussion is had about what exactly happened, and the mother tries unsuccessfully to draw a moral (additional contributions from sibling have been removed).

719	mother:	so did you have to do your PBS today?
720	child:	(.) mhm.
721	mother:	what wh (.) what happened.
		((brother comment - omitted))(1.3)
723	child:	I write a piece a paper,
724	mother:	(1.4) you wrote on a piece a paper.=
725	child:	=mhm
726	mother:	(1.2) what did you have to $\uparrow$ write. (1.1)
		((discussion about table manners - omitted))
736	mother:	so (0.7) was you on your own? or was you with um
737		(0.3) .t (0.4) [OTHER CHILD 1] and [OTHER CHILD 2].
738	child:	mhm



739	mother:	(0.4) oh dear. (0.3) so you guys didn't get another
740		one though did you? (0.3) did you [behave?]
741	child:	[OTHER CHILD 1] did,
742		(0.5) .t $(0.3)$ [OTHER CHILD 1] got another one the
743		[same day. ]
744	mother:	[he got an <u>o</u> ]ther
745		PBS
746	child:	(0.9) mhm
747	mother:	(.) what (0.4) $\uparrow mm$ . (0.3) okay (2.1)
748	father:	for what.
749	child:	(2.8) ((eating)) oh. (0.9) back talking in class and
750		stuff.
751	father:	(.) today,
752	child:	(0.4) yeah and shouting out (0.4)
753	father:	so you got an R n:other one
754	child:	(0.2) ( ) who?
755	father:	(0.8) you got an <u>o</u> ther PBS.=
756	child:	↑n[ <u>o</u> :.]
757	mother:	[no.]
758	father:	(0.5) wh <u>o</u> did.
759	child:	(1.0) [OTHER CHILD 1]. (4.0)
760	mother:	so (0.5) you had to write on a piece a paper what
761		about yesterday? or:, (0.2) ((with mouth full)) what
762		did you have to (0.3) ( ) on it.
763	child:	(2.7) had to do like an apology thing on the back,
764	mother:	(1.0) ((with mouth full)) mrs [TEACHER NAME 1],
765	child:	(.) $\circ$ yeah, $\circ$ (0.9) (and then you) (1.1) then (3.7)
766		((eating)) and then we saw her (.) break (1.4)
767	mother:	•aw and you gave it to her.•
768	child:	(1.4) no we saw her at break and she was like (6.0)
769		fnow (0.6) fmr [TEACHER NAME 2] said that (0.3) faw:
770		that now (1.0) ((with mouth full)) ( )
771		(certain) future excursions (for three and fours) are
772		now cancelled because of us.
773	father:	what
774	child:	(1.3) ↓the hell. (1.3)
775	father:	what? (0.5) did he say?



776	child:	(1.3) he said now the (.) future excursions (have to
777		be)
778		( ) ruined. (0.9) like they're not
779		happe[ning anymore.]
780	mother:	[who said that] mr [TEACHER NAME 3],
781	child:	(0.2) mr [TEACHER NAME 2].
782	mother:	(0.3) who's th <u>a</u> t. (0.5) he's a new teacher?
783	child:	(1.6) •never heard of him• (0.5)
784	father:	•what because a you,•
785	child:	(1.5) y <u>ea</u> h.
786	father:	(0.7) [( )]
787	mother:	[I doubt it] (.)
788	father:	hm (4.6)
789	child:	I bet he was just saying that to idiminate (0.2)
790		intimidate us (0.3) which was not working, (2.7)
791	father:	heh (1.2) it only works at (0.5) ((looks at clock))
792		nine o'clock at night. (.) doesn't it.
793	child:	(1.2) what does that mean $(0.6)$
794		((brother comment - omitted))
795		
796	father:	[coz that's the only time you think about it,] and
797		get upset by stuff like that. (0.6)
798		((brother comment - omitted))(4.6)
799	mother:	so has it taught you a lesson? (0.2) to (0.3)
800	child:	nope.
801	mother:	(.) start thinking? (0.4)
802	child:	if it was to mrs i if to (.) was to mrs (.) coo (.)
803		[TEACHER NAME 4], $(0.5)$ I'll be like $(0.2)$ yep.
804		that's a lesson. (0.2) to mrs (.) [TEACHER NAME 1],
805		(.) $\downarrow$ n:ah I didn't learn anything. (0.4) ((gets up
806		and leaves kitchen))

Questions about school and how they were responded to.

All after school conversations included questions by parents of the target child. In some cases the child was voluble, and initiated and drove highly elaborated accounts of their day at school, with little need for prompting by the parent. This was the case for instance for two girls in the non-autistic group, aged 8.8, and 10.2, who both talked a lot in the video-recordings collected for us.



Another non-autistic girl, aged 10.06, was very voluble on one of two days of recording and quite shut down on the other, for reasons not apparent from the recorded interactions. At the other extreme, one 8 year old boy on the spectrum was hard to understand and his mother made many guesses for him to respond yes or no to. An example from this interaction is given in Extract 5. In between, there were many family interactions where there were extensive question and answer sequences during which parents attempted to gain and clarify information about school.

#### Extract 5 – boy on the spectrum aged 8, in car with mother on the way to school

079	mother:	(0.6) n' who're you gonna play with ↓t'day.
080	child:	(1.2) I dont- (1.2) know.
081	mother:	(.) you don't ↑know?
082	child:	(0.4) I- I- I- I-, (.) .hhhh ((holds breath making
083		small noises)) hhhh. (2.5) .hhhh ((holds breath
084		making small noises of effort)) hhhhh aaahhhh:::.
085	mother:	what's wrong.
086	child:	(0.3) .hhhh ((holds breath making little noises of
087		effort)) k-hhhh hh. (1.3) hhh aahhhhhh.
088	mother:	what' that big sigh for?
089	child:	(0.4) hhaawwhhh::.
090	mother:	you ri:ght?
091	child:	okay, (.) go. (.) ((whispers under breath
093		unintelligibly. Begins making noises.)) dwee:: ↑you
092		(.) mhuh mhuh mhuh huh huh (.) chhff (.) <code><math>\uparrow</math>woo</code>
095		↓woo ↑woo ↓woo ↑woo? ↓chff chff chff (.) ne:u::, (.)
096		woo:†oo:†oo: .hh †neu::, †neuh
097	mother:	(0.8) what movie's that $\downarrow$ from.
098	child:	(.) I don't. think. ↓so.
099	mother:	(.) you don't think so.
100	child:	(12.3) ((speaking to self)) (skid it $a\uparrow$ round).
101		(0.6) .hhh
102	mother:	so who're your friends at $\downarrow$ [NAME] school.
103	child:	(1.1) ugh- ↑Dai↓sy.
104	mother:	(.) Daisy's your $\uparrow$ teach $\downarrow$ er. (.) who's your friends.
105	child:	(0.5) e- ah- ah- ahh:: my goodness (incs).
106	mother:	(1.9) ↑who're your friends?
107	child:	(0.6) •I can'•T (.) .HHHH
108	mother:	can you remember? (5.7) ((child does not respond))



109		what abou:::t, (1.0) ((coughs)) (.) umm::, (1.1)
110		fred.
111	child:	(1.1) no.
112	mother:	(1.2) what abou::t, $(0.2)$ thenry.
113	child:	(1.0) no,
114	mother:	(1.0) what abou:::t, (0.6) watlter.
115	child:	(0.4) no.
116	mother:	(0.4) ↑no? walter isn't your friend?
117	child:	noo:,
118	mother:	((high voice)) who's your friend?
119	child:	umm:: no. no (1.7) ((talking to self)) °I can't-,°
120		(.) I didn't, (.) do anything, (.) come on .
121	mother:	(1.3) what about $\uparrow geoff \downarrow rey?$
122	child:	(0.9) noo::.
123	mother:	(0.2) noo:.? (3.3) ((child does not respond)) I
124		thought you played with geoffrey?

As indicated earlier, Conversation Analysts have shown that preferred responses to a question include an appropriate answer delivered promptly. While what is considered a "prompt" response varies between languages and cultures, it is generally considered that a response to a question should come within 1 second of the question, and no response, a delayed response, or an inappropriate answer will result in attempts from the questioner to fix the problem (Stivers et al., 2009; Gardner & Mushin, 2015).

Preliminary analysis of the conversations considered here included a qualitative coding for each question asked of the target child as to whether the child responded appropriately or inappropriately or not at all, and an overall qualitative coding for the child's interactions about school as to whether they generally responded fine, or whether they notably often responded with no answer or with problem answers to questions about school. We also noted degree of elaboration of responses - whether children often responded with minimal answers only, or sometimes with more elaborated answers, or exhibited a lot of elaboration.

Of the 11 children on the spectrum, three (including two girls and one boy) generally responded fine to questions, while eight (including two girls and six boys) notably often did not respond to questions about school or responded with problem answers. In terms of the degree of elaboration of their answers, the two girls who responded fine were also noted to respond with an appropriate degree of elaboration; the remaining nine children were noted to often give minimal responses.



In the non-autistic group, eight of the ten children generally responded fine with one girl noted as notably often not responding or responding problematically and another girl (mentioned above) unresponsive on one of two days (and responding fine and highly elaborative on the other). Five of the girls were highly elaborative in their responses, and four of the children (male and female) provided some elaboration of their answers; only one child (a boy) consistently gave minimal answers to questions. Extracts 6 and 7 are examples of minimal responses where the parents work hard to achieve any kind of response to their questions.

Extract 6 - boy on the spectrum, 9 years old, day 4 of recording, in kitchen with mother and father

1081	father:	(0.4) that's (	) wants to hear, and
1082		what else. (0.7) anything else h	appen at school today?
1083		(0.9) what did you have any spec	cialist (.) classes,
1084		(7.6) ((gazing at child, child s	stamping feet and
1085		chewing food)) (2.2) ((leans hea	ad forward to catch
1086		child's gaze and waves))	
1087	child:	what?	
1088	father:	heh (0.3) £did you HAVE ANY spe(	(h)cialist classes
1089		today.	
1090	child:	(6.1) mm (1.2)	
1091	father:	↓uh.	
1092	child:	no.	
1093	father:	$\downarrow$ no. (0.8) so what did you do. d	lid you ha:ve m <u>a</u> ths?
1094	child:	(1.2) mhm?	
1095	father:	(0.4) aw you're good at maths: n	normally aren't you.
1096		(2.4) do you know do you remembe	er what you learnt about
1097		during maths (5.8) ((child stari	ng straight
1098		ahead))[CHILD'S NAME]? (.) hell[	[o:.]
1099	child:	[mm ]	
1100	father:	are you listening?	
1101	child:	(0.3) directions.	
1102	father:	(0.6) dir <u>e</u> ctions.	
1103	child:	(0.3) mhm,	

**Extract 7** – girl on the spectrum, 8 years old, day 1 of recording, with other in kitchen/living room

256	mother:	((flicking through a book, child out of camera shot))
257		<code><math>\uparrow</math>how come you pick all the picture books. why don't you</code>



258		pick some of the bigger books with more words [CHILD'S
259		NICKNAME]. (2.8) [CHILD'S NAME]? (0.2) how come you're
260		picking all these old picture books. $(0.9)$ (not novel
261		grade) books. why don't you pick some of the ones with
262		more words. (0.4) like your friendship (fudge) book and
		all that.
263	child:	(1.2) yes (0.5) but I don't really want to (be in a)
264		big books.
265	mother:	(0.4) why,

Another kind of communicative problem which arises in the question-answer sequences is the need for parents to clarify information. While for the most part this succeeds, Extract 8 is an instance where a child's hard to interpret response does not provide sufficient information for his mother to work out who he is talking about, and he is not able or willing to effectively "repair" the problem by providing more information.

Extract 8 – boy on the spectrum, 8 years old,

067	mother:	(0.2) OHH:: did you read a story about a crocodile.
068	child:	(0.7) nn: (.) no.
069	mother:	(0.6) no:?
070	child:	(0.5) they did.
071	mother:	(0.5) who did.
072	child:	(0.6) they did.
073	mother:	(0.4) who did. (2.0) Miss [TEACHER'S LAST NAME]?
074	child:	(4.5) ((covers face and turns away from mother))
075	mother:	((whistles))
076	child:	(1.5) ((turns back to mother))
077	mother:	who read about a crocodile.
078	child:	(7.1) ((turns away again))
079	mother:	d'you wanna read about the very cranky bear?
080	child:	(0.2) nyeh.
081	mother:	(0.2) yep. (0.3) okay.

Most questions about school were asked by parents or carers, but in some cases children asked their siblings something about school. We looked carefully for examples of children initiating talk about school. In general the children not on the spectrum were more inclined to volunteer information, often in the context of a previous question or discussion, and in some cases to ask a



question or initiate a topic. However some children in the group on the spectrum also initiated some discussion or volunteered some information. Extract 9 is an example of a short interaction between two brothers about school.

**Extract 9** – boy on the spectrum aged 9 talking to his brother about a book prize the brother has been discussing with their mother

040	child:	did you get that book
041	brother:	(1.1) that three D one,
042	child:	(.) book club magazine?
043	brother:	(1.7) yeah? (0.6) [(that's why.)]
044	child:	[okay. ] (0.8)
045	brother:	and it had (0.3) [goose bumps ( )]
046	child:	[ <u>I</u> got it too. ] (1.0)
047		[I HAVE NO idea what I'm going to get. (.) mm] $% \left[ $

#### Stories about school

We also investigated whether the children told stories about school during their after school interactions, and many of them did. Again, these varied from fairly short and prosaic sequential accounts of events which occurred, to highly colored tales with drama and moral import. We did not count as "stories" the lists of timetabled activities children often related in response to a parent's question "what did you do today?", however we did note in addition to specific narratives, generic accounts of what usually happens at school in a particular context.

Four of the children on the spectrum produced no narratives about school, four produced a small number of short narratives, and three produced quite a number of accounts. In the non-autistic group, most children produced a range of short narratives about school with only one child not telling any. Some of their stories are seen in the extracts given above and below. A detailed examination of the stories is for future research.

#### Talk about the future and hypotheticals

Children and parents sometimes engaged in talk about future events relevant to school. This occurred with all the children not on the spectrum, but for three of the children on the spectrum there was no real discussion of future events in the interactions recorded.

We were more interested in whether children and their carers engaged in hypothetical discussion about school including potential discussion of how to handle difficult situations. We found that in



each group of participants, some children and their parents engaged in such discussions. In the non-autistic group, seven of the ten children took part in some hypothetical discussion; for the other three either such discussion did not arise or in two cases, the child's mother tried to raise some hypotheticals but this was not taken up by the child. For the group on the spectrum, similarly eight of the eleven children took part in some interesting hypothetical discussions, but three participants had no such discussion. Extract 10 is an example of some hypothetical discussion between a mother and son about the relationship between his sleep patterns and ability to cope at school.

<b>Extract 10</b> – boy on the spectrum, 12 years old, w	vith mother in bedroom
--	------------------------

126	Mother:	(0.9) $\uparrow$ oh. (0.8) so what sorta things were making you
127		Îsad today.
128	Child:	(0.3) like I don't know? jus- (0.6) .hhh I feel like
129		I just have the ordinary just annoying (0.8) annoying
130		thing what happens like, (0.7) I get a nightmare,
131	Mother:	(0.6) m?hm.
132	Child:	then after that I go on dad's bed?
133	Mother:	(0.3) mhm?
134	Child:	(.) then after that I just, (.) I don't know. umm
135		(1.1) thhh (0.5) wake up, I get lazy, (0.9) then
136		after that I go: (.) t. school. (0.6) then after that
137		I just have no (idea) about work, (0.3) [at the en:d
138		t]
139	Mother:	<pre>[t. o::hh::.] (0.8) d'you think maybe (.) if y'don't</pre>
140		sleep well you can't work well.
142	Child:	(0.7) yea::h
143	Mother:	(0.3) okay (0.4) are you starting to feel [sleepy now? ]
145	Child:	[it's hard for me t.] (.) i jus have a hard time
146		sleeping?
147	Mother:	(0.3) did you have a hard time last night [did you?]
148	Child:	[ye:ahh ]
149	Mother:	(0.2) ooh. darling.
150	Child:	well I jus happens $\downarrow$ all the time mainly.
151	Mother:	(0.7) mm (.) well (.) $\uparrow$ well sometimes you have a good
152		sleep



153	Child:	(1.4) [we::ll I was just mainly ] completely normal=
154	Mother:	[d'you think maybe after doing]
155	Child:	= but I just,
156	Mother:	(.) well d'you think [after having]=
157	Child:	[I just ]
158	Mother:	=some exercise this evening? you'll sleep better?
159	Child:	(1.6) •maybe I just have a bit of some exercise
160		tomorrow, °
161	Mother:	yeah, (0.2) ↑okay. (.) is that enough talking about
162		school?

A more extended discussion occurred between an eight year old girl on the spectrum and her mother. In the parts of this given in Extract 11, the mother has brought up the topic of a school club and has asked if the child is happy that she talked to the teacher as mother had suggested, about another child who had been kicking her legs under the table. The child says she feels a bit better and they embark on a discussion of the situation during which a lot of sense-making and some hypotheticals occur. A few highlights of this discussion giving the flavor of the talk are provided here.

#### Extract 11 – girl on the spectrum aged 8

802	mother:	(.) but sometimes ya gotta s <u>a</u> y something cause people
803		don't kn <u>o</u> w (.) that you're (0.4) y'know that you're
804		getting upset or that (0.3) they're doing something
805		that's up- bothering you. (1.3) that's why you have to
806		use your words and t <u>e</u> ll them. (1.5) are ya happy (.)
807		mummy (.) insisted that you go back and talk to mrs
808		[TEACHER NAME] about it there and then? (0.3) otherwise
809		you'd still be angry. Wouldn't you.
810	child:	(3.4) (I don't think) so.
811	mother:	(0.2) would you still be angry?
812	child:	(0.5) mm but mummy. [also]=
813	mother:	[mm.] =
814	child:	=another thing she always touching me and I didn't like
815		it.
816	mother:	(0.6) well what do we do if someone's touching you and
817		you don't like it. What do you d <u>o</u> . You've got to say
818		



819		something. What did you- (1.6) how was she touching
		you.
		((lines omitted))
825	mother:	(0.4) well you've gotta say something darling.
826	child:	(2.8) I know I said for a couple of times I said (0.3)
827		I didn't wanna play with you anymore.
828	mother:	(0.9) you've told her that.
829	child:	(0.6) yes. (0.8) I didn't really mean it until then
830		when I got real upset that's when I told you.
831	mother:	(0.6) well that's when y- $(.)$ when you first say it?
832		(0.3) that you don't wanna play anymore? (0.3) then
833		that's when you need to talk to mrs [TEACHER NAME]
834		about it. (0.9) you don't wait until you get very very
835		upset and angry like- and then you were crying. (0.6)
836		you need to say it. Soon as you start feeling that way,
837		(1.0) start feeling upset [CHILD'S NAME]? (1.5)
838		otherwise you're gonna just keep getting more upset and
839		more angry and it doesn't help you does it. (1.6) hey!
840	child:	(0.4) mkay (.)
		((excerpt omitted - about filming))
860	child:	[lemme just say] for
861		exa:mple, $(0.3)$ and this- $(0.3)$ and this is me and this
862		is [OTHER CHILD'S NAME],=
863	mother:	=mm?
864	child:	(0.5) (then) $(0.4)$ first of all um she and- $(0.3)$ and
865		touches me,
866	mother:	(0.6) well that's where you would say (0.2) that you
867		don't like it and that they need to stop.
868	child:	(1.3) ye[s-]
869	mother:	[ y]ou know how to say that. You've done that
870		before. Haven't you?
871	child:	(.) ye:s I have done it before, (.) we[ll ]
872	mother:	[well] why didn't-
873	child:	(.) (only.)
874	mother:	well (.) it doesn't matter wh <u>e</u> n you are! (.) even mummy
875		(.) if someone was touching mummy now as an ad- (0.5)
876		I'd be telling 'em to stop if I don't like what they're
877		doing.



878	child:	(1.8) ye:s I know what I should say and (0.3) and this
879		is (.) um me when I was (sitting up) and this is (0.6)
		and this is when: she was kicking my feet. $(0.7)$ and
880		kicking me.
881		

#### Was talk about school positive or negative?

In a number of families, parents and children had a system for talking about the school day, for instance assigning it a score out of 10 and in one case, talking about it in terms of colours based on a behavioral chart in use in the classroom for this child on the spectrum. Similar strategies were also reported by some of the parents in the online study. Preliminary qualitative analysis shows that for the group on the spectrum, three children were generally negative about school in the interactions recorded here, while the other eight had mixed reactions. For the non-autistic group, more than half the children (six out of ten) were generally positive about school, and four had mixed responses; none were predominantly negative about school although some significant negative events and concerns came up in discussion. Extract 12 shows a discussion of how good the day was in the car coming home.

Extract 12 – boy on the spectrum, 9 years old, Day 1 of recording, in car with mother and brother

001	mother:	hey [CHILD'S NICKNAME] how was your day. (.) [CHILD'S
002		FIRST NAME]? (1.1) [CHILD'S FIRST NAME]. (1.8)
003		[CHILD'S FIRST NAME].
004	child:	(.) what.
005	mother:	how was your day.
006	child:	(3.7) omm(gh) o (0.8)
007	mother:	[°a-°]
008	child:	[ fi]ve out of ten.=
009	mother:	=↑aw just five out of ten today. (1.4)
010	brother:	what was the [(mine.)]
011	child:	[ $\uparrow$ coz I ] w had to stay in to do my maths
012		work (1.8) <code>•that I didn't finish in maths groups•</code>
013		(1.3)
014	mother:	°aw okay,°
015	brother:	[guess what]
016	child:	[ $\uparrow$ A:]ND WE HAD TO DO P E and it was too
017		mu[ch. ]



018	brother:	[guess what] I have ho[mework. ]
019	child:	[so it's a fi]ve out of [ten.
020		]

#### How were problems and negative experiences dealt with?

We have seen examples above of children and their parents talking through and processing the events of the school day, including in particular negative or problematic experiences. However children had told us in their interviews that there were some things – generally negative things or personal things – that they did not want to talk about, including in some cases to their parents. This was borne out in the recorded interactions we analysed also. As indicated above, children quite often cut off discussion about such incidents. In addition to examples like Extract 3 above, we have examples such as Extracts 13 and 14 which show one child closing off discussion and their parents sensitively accommodating to this.

#### Extract 13 – boy on the spectrum, aged 9, talk over dinner on day 1 of recording

229	mother:	[well that was] a good idea,
230		(2.6) hey (.) um (0.8) you know this morning how I put
231		that folder in your bag, at the lineup, (1.8) did you
232		have a little issue with it, $(0.6)$ was it too much to
233		put in your bag,
234	child:	(0.4) mhm
235	mother:	(0.3) did m- (.) did the teacher help [you?]
236	child:	[ m] hm
237	mother:	(1.3) how did you cope with that. were you okay in the
238		end?
239	child:	m aw yes. (0.6)
240	brother:	[STICK IT IN YOUR FREA:KY BUTT.]
241	child:	[ mm ↑I don't wanna about thi:]s anymore.
242	father:	((wiggles eyebrows up and down at brother))
243	brother:	[I I said stick it in your freaky butt. ]
244	mother:	[°okay.° (.) you don't wanna talk about it anymore.]
245	father:	I h <u>ea</u> rd you say that.
	((t	copic changes))

**Extract 14** – boy on the spectrum, aged 9, in car with mother and brother on day 2 of recording



343	mother:	(1.2) [CHILD'S NAME]. (0.5) how was your day today.
344		(1.1) at school. $(2.2)$ out of ten. $(0.6)$ what would you
345		rate it out of ten. (2.6) yesterday was five,
346	child:	(1.3) teh (0.9) nine (and) (1.2) nine.
347	mother:	(0.5) .t n <u>i</u> ne. (0.3) well that's a lot better than
348		five? that's pretty good
349	child:	(0.9) four more.
350	mother:	(0.9) four more. (.) yeah. $(0.9)$ what was the minus
351		one.
351 352	child:	one. (0.7) mm: (1.0) because I u:pset °me° (1.4) °lots of
	child:	
352	child: mother:	(0.7) mm: (1.0) because I u:pset omeo (1.4) olots of
352 353		(0.7) mm: (1.0) because I u:pset $\circ me \circ$ (1.4) $\circ lots$ of times and I: $\circ$ (3.5)
352 353 354	mother:	(0.7) mm: (1.0) because I u:pset omeo (1.4) olots of times and I:o (3.5) what did you get upset about.
352 353 354 355	mother:	<pre>(0.7) mm: (1.0) because I u:pset •me• (1.4) •lots of times and I:• (3.5) what did you get upset about. (0.4) ↑mm I don't wanna talk about it. (0.3) makes me</pre>

# 3.4 Summary of findings

Solomon (2013) and Maynard et al. (2016) have highlighted what Solomon (p. 134) has called "the work of families as the organizing force" for individuals on the spectrum, with Maynard et al. noting the need for improved understanding of the structures of interaction in family settings (p. 421). The "How was your day?" project aimed to explore the nature of home communication about the school day in families with children on the spectrum compared with children not on the spectrum, asking the following research questions:

- 1. Do parents perceive there to be difficulties in communicating about the school day with their child on the spectrum?
- 2. What type of personal autobiographical stories do children who are and are not on the autism spectrum tell about their day after school?
- 3. Do parents and children engage in discussion of possible alternative scenarios in talking about school experiences?
- 4. Where do communication breakdowns occur in conversations between children on the spectrum and their families about the school day?



These questions have been addressed through a mixed methods design, considering parent, teacher and child surveys or semi-structured interviews, and analysis of actual recorded conversations after school.

Analysis of 275 parent responses to an online survey indicated that parents of children on the spectrum were somewhat more likely to perceive problems in communication about school with their child, and preliminary analysis of actual interactions between parents and 11 children on the spectrum and 10 children not on the spectrum suggests that while there is a large amount of variation, there are differences in the interactions. All the children on the spectrum in this study did talk about their school experiences with their families. Some conversations "flow" and are informative in both groups, but the group on the spectrum are more likely to give rise to conversations where the parent has to work hard and the child is less likely to provide elaborated responses. In general, the parents taking part in the recorded interactions in Part 1 of the project were relatively positive in reporting in the parent survey that communication with their child about school worked well: in fact, in considering their actual interaction with their children, we found that these parents often worked very hard to communicate with them.

Viewing the recordings and reading through the transcripts made the everyday experience of parents in their endeavor to gain some insight into their children's school lives very clear. When children are forthcoming and the interaction is lively and flows well, parents clearly more easily feel connected to their child's school life and confident about whether this is going well and that they are on top of any issues. The kinds of questions parents asked indicated that in many cases they kept a close eye on issues which they had already flagged for themselves with "watch" markers: relationships with teachers and with other children; habitual issues with subject content or the school routine; friendships and playground problems.

With children in this study, those on and not on the spectrum, we observed parents exercising significant levels of sensitivity in their communication with their children about school, and in particular, clearly making decisions as to when to back off to avoid melt downs. In some cases, parents put in substantial amounts of work to get answers to their questions about what was happening at school. This has been clear from the extended examples discussed above.

While children in both groups sometimes tell stories about their day and parent-child dyads in both groups do engage in problem solving and hypothetical discussion, this occurs in more limited ways for the group on the spectrum. Factors which work against high quality interaction about school include timing, the child's mood, distraction by electronic devices and other children in the family, and whether the topic under discussion is upsetting. A number of families found the use of the



prompt scenario supplied assisted with communication about school, perhaps in some instances, because this was a time set aside in a quiet place without the other distractions of family life going on.

# 4. Limitations

It was difficult to recruit large numbers of participants to take part in Part 1 of the project, perhaps because of perceived challenges surrounding the video-recording of home interaction. Nevertheless, we were able to collect a sizeable amount of video-recorded naturalistic family interaction, of which further analysis is possible. The limitations of sample size for the parent survey data were addressed in Part 2 of the project, in the additional online survey.

Parents included in Part 1 of the project addressed the task of video-recording after school interactions in different ways from one another, making the data collected somewhat less strictly comparable. For example, some parents recorded many more interactions over more diverse time periods and settings than others.

Due to the fact that the study was advertised to potential participants as concerning after school talk about school, it is not clear to what extent the talk about school recorded for this study is representative of what would happen in a more typical week within the households included.

# 5. Future Research

The video-recorded conversational data produced by the project is a rich resource and many additional analyses of the data are likely to be rewarding in addition to the basic analyses we were able to complete within the time and resourcing constraints of the project. These include further more detailed analysis of the conversational patterns including the flow of turn taking and the pattern of questions and answers, as well as narrative analysis of the personal experience stories the children tell, including the children's linguistic performance at lexical and sentential levels as well as the structure and sophistication of the conversational narratives.

A projected next step in this research is the development of provisional guidelines for facilitating after school discussions, and outline of a trial support program targeting conversational interaction between parents and children after school, based on the answers to the research questions.



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# Appendix A – Survey instruments

## Parent survey questions

## Thinking about your child this year at school:

• Please indicate on the scales below the type and frequency of communication you have with your child's school about how they are going and any issues which might arise.

I have a face to face conversation with my child's classroom teacher:

Every day	Once a week	Regularly	Rarely	Never

Does an integration aide/teacher aide support your child in the classroom? YES / NO

*I have a face to face conversation with the integration aide/teacher aide who supports my child?*:

Every day Once a week	Regularly	Rarely	Never
-----------------------	-----------	--------	-------

Do you currently use a "communication book" to pass messages to and from classroom staff and home?

YES / NO

If so, this works effectively as a communication tool:

Always/frequently Sometimes Never

• It is easy for me to communicate with my child about school:

Always	Sometimes	Rarely	Never
--------	-----------	--------	-------

- *My child would talk about positive things that happen at school:* 
  - Every dayOnce a weekRegularlyRarelyNever
- My child would talk about problems or negative things that happen at school:
   Every day Once a week Regularly Rarely Never
- When something good has happened at school, these conversations go easily and well:



Always or usually very smoothly Sometimes somewhat difficult Always very difficult

- When something has gone wrong at school, these conversations go easily and well:
   Always or usually very smoothly Sometimes somewhat difficult
   Always very difficult
   If the conversations seem difficult, please comment on why you think this is so:
- My child and I discuss and brainstorm possible ways of handling problems at school:
   In every case that problems arise
   Sometimes
   Rarely
   Never
- My child feels positive about going to school:

Always Sometimes Rarely Never

- *My child feels negative (nervous or anxious) about going to school:*
- Always Sometimes Rarely Never
- To my knowledge, my child is or has been bullied at school:

Every day Once a week Regularly Rarely Never

- If your child has experienced bullying, can you give an example of how this has been handled and whether the problem was resolved:
- The degree of difficulty of communicating about the school day with my child is (please rate from 1-5):

Please add any other comments you have.



# **Teacher survey questions**

Please consider the descriptions contained in each of the following items and rate the extent to which each of them applies in your experience as classroom teacher / classroom aide for [CHILD'S NAME]:

• Please indicate on the scales below the type and frequency of communication you have with this child's family about how the child is doing and any issues which might arise.

I have a face to face conversation with a member of the family:

Every day	Once a week	Regularly	Rarely	Never
Lvery uay	Once a week	rtegulariy	Trately	INCVCI

Does an integration aide/teacher aide support this child in the classroom ? YES / NO

*I have a face to face conversation with the integration aide/teacher aide who supports this child:* 

Even dev	Once a week	Degularly	Darahy	Never
Every day	Once a week	Regularly	Rarely	INEVEL

Do you currently use a "communication book" to pass messages to and from classroom staff and home?

YES / NO

If so, this works effectively as a communication tool:

Always/frequently Sometimes Never

- This child talks about problems that arise at school with me:
  - Frequently Sometimes Rarely Never
- To my knowledge, this child is or has been bullied at school:
- Every day Once a week Regularly Rarely Never
- If so, can you give an example of how this has been handled and whether the problem was resolved:

.....



• This child is easy to manage			
Always	Sometimes	Rarely	Never
Please add fu	irther comments if you	wish:	
• This child	seeks reassurance fro	om me	
Always	Sometimes	Rarely	Never
Please add fu	irther comments if you	wish:	
• This child	is confident at school		
Always	Sometimes	Rarely	Never
Please add further comments if you wish:			
• This child is "tuned in" to the classroom			
Always	Sometimes	Rarely	Never
• This child likes to come to school			
Always	Sometimes	Rarely	Never

Please add any other comments you have:



## Child survey questions for semi-structured interview

## NOTE: The child is taken through the questions by the research assistant.

## Script for Research Assistant:

Hi X, my name is [NAME OF RESEARCHER] is it okay if I sit and talk with you for a bit? I would really like to hear your ideas about some things if that's okay. This will just be between us so I won't tell anyone else unless there is something serious that we need to do something about, okay?

So first of all, how old are you? That means you're in grade X at school is that right? What is your school called? What is your teacher's name?

- Tell me a bit about your school. What is it like to be at your school? Is it a big school? Are there a lot of children in your class?
- Tell me about some of the good things about being at school. What do you like best about school? (prompt for activities if the child is not forthcoming)
- Tell me about some of the not so good things. What don't you like? Does this happen a lot or just sometimes? [have some examples on hand e.g. some children don't like when there is a lot of noise at changeover]
- What happens when something good happens at school? Do you let other people know? Do you like to share good things that happen? Can you think of a time when you did that? Who did you tell? What was it about?
- Do you like talking about good things that happen at school?
- What is the best way to share news about good things at school draw, write, talk?
- Who is it easiest to talk to about good things that happen at school? [boxes tick one or more]



Mum
Dad
Brother or sister
Friend
Teacher
Someone else - please tell us who?
I don't talk to anyone about school

- What happens when something not so good happens at school? Do you let other people know? Has that ever happened to you? Can you tell me what it was about? Were you able to tell someone?
- Who is it easiest to talk to about problems at school?

Mum
Dad
Brother or sister
Friend
Teacher
Someone else – please tell us who?
I don't talk to anyone about school

- Is it helpful to you to talk about problems at school?
- Do you think your parents want to know about these things?



# Appendix B – Transcription Conventions

<b>Pause</b> pause, timed in seconds pause, short (less than 0.2s) latching lag, lengthened sound	(1.2) (.) = wor:d
Sequence overlap Disfluency	speaker 1: words [word word] speaker 2: [word ] more words
cut-off word Vocalism	wor-
inhale (loud) exhale (loud) click laugh pulse laughing word creaky, glottalised word other vocalism	.hhh hhh .t heh wor(h)d wor <i>gh</i> d ((coughs))
Manner/Quality quiet speech loud speech audible smile quality	∘words∘ WORDS £words
<b>Metatranscription</b> unintelligible uncertain comment (including gesture, facial expression, movement)	(    ) (word) ((smiles)), ((nods)), ((points))
Participation speaker/turn attribution unidentified speaker uncertain speaker	child: ( ): (child):
<b>Boundary/closure</b> terminative (falling intonation) continuative (flat intonation) appeal (rising intonation)	, ?
<b>Prosody</b> accent (extra or unusual emphasis) high pitch low pitch	w <u>o</u> rd ↑words ↓words





#### Autism CRC

The University of Queensland Long Pocket Precinct Level 3, Foxtail Building 80 Meiers Road Indooroopilly Qld 4068 **T** +617 3377 0600 **E** info@autismcrc.com.au **W** autismcrc.com.au



@autismcrc

# **Our values**



### Inclusion

Working together with those with the lived experience of autism in all we do



#### Innovation

New solutions for long term challenges



# Independence

Guided by evidence based research, integrity and peer review



#### Cooperation

Bringing benefits to our partners; capturing opportunities they cannot capture alone



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