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11 The ability to repair and to be responsive

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11.1 Introduction

Turn taking is central to conversation and is dependent on the responsiveness of the conversational partners. The ability to repair is necessary for turn taking to continue smoothly. Some repair strategies directly concern turn taking, while others are more focussed on repairing communicative breakdowns with respect to the accessibility and intelligibility of information, conveyed in morphological/syntactic form and structure. Other repair strategies are more involved in creating clarity about semantic/pragmatic content and intention of messages (e.g. Ninio and Snow, 1996). The acquisition of repair strategies, a semantic/pragmatic ability that starts at age two/three, is essential for children to learn, but it might be delayed in LI- and PI-children.

Deficiencies on the turn exchange level, such as long gaps and interruptions between turns, have a negative influence on the transmission of information (see 10.6), but they have relatively little impact on the quality of the interview compared to the impact of N- and PI-children's responsivity. The amount of extended discourse is a marker of responsivity, whereas missed turn chances and minimal answers are markers of non-responsivity.

In order to explore the ability to repair and be responsive, and to detect possible difficulties, we carried out a functional language analysis on the basis of Speech Act theory (Austin, 1962; Searle, 1969) following the model of Roelofs (1996; 1998) (Table 11.1).

Table 11.1 The coding categories of the variable speech act functions

<table>
<thead>
<tr>
<th>Speech act functions Interviewer</th>
<th>Speech act functions Child</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Linguistic stimulating effort</strong></td>
<td></td>
</tr>
<tr>
<td>- feedback, prerequests, assertions, acknowledgements</td>
<td></td>
</tr>
<tr>
<td><strong>First pairparts</strong></td>
<td></td>
</tr>
<tr>
<td>- request for information, clarification, acknowledgement and for action</td>
<td></td>
</tr>
<tr>
<td>- assertion</td>
<td></td>
</tr>
<tr>
<td><strong>Second pairparts</strong></td>
<td></td>
</tr>
<tr>
<td>- answer, clarification, acknowledgement and response</td>
<td></td>
</tr>
<tr>
<td><strong>Extended discourse</strong></td>
<td></td>
</tr>
<tr>
<td>- assertive or narrative contributions, repair</td>
<td></td>
</tr>
<tr>
<td><strong>Second pairparts</strong></td>
<td></td>
</tr>
<tr>
<td><strong>First pairparts</strong></td>
<td></td>
</tr>
<tr>
<td>- request information, clarification and attention</td>
<td></td>
</tr>
</tbody>
</table>
In general, we therefore have to know whether the PI-children produce a comparable amount of certain speech act functions as the N-children. And, is there comparable development with age?

In all conversational interviews, we first identified all adjacency pairs. These consist of two communicative contributions, coded as first pairpart (initiative of the interviewer) and second pairpart (reaction of the child) categorized according to their function and form (see also Ninio, Snow, Pan and Rollins, 1994). In this genre the different types of speech act functions within adjacency pairs are rather limited, being most frequently of the 'question - answer' type and falling within the broad repertoire of different speech act functions already acquired by four-year-old N-children. We then identified those successive communicative contributions that could be coded as extended discourse that is when children tell more than is strictly asked for. One type of extended discourse is, for instance, an anecdote about an everyday-life event, narrated in successive communicative contributions within a long turn (see 10.3 and 10.4). In this type of conversational genre, the interviewer can mostly ask short questions or give short comments while the conversational narrative is told. These conversational narratives are like everyday narratives that are in most cultures an even more interactive linguistic genre, since more narrators can tell the same story (e.g. Güllich and Quasthoff, 1986). The themes of four- to five-year-old English-speaking N-children frequently are concentrated on animals and their activities, whereas six- and seven-year-olds prefer danger and adventure stories. With increasing age, it is observed that English-speaking N-children (3;0 to 7;11 years) realize that conversational narratives need to be reportable (interesting, strange, unusual) to justify the extended talking turn that story telling allows the speaker (Haslett, 1986). We then selected the repairs and children's first pairparts requests for clarification in order to explore their ability to repair conversational breakdowns.

Differences in interview style

It is important first to consider how far the conversational behaviours described here may be influenced by variables such as differences in interview style between the N-interviewer and PI-interviewers (e.g. Bishop et al., 2000) (see also 10.5.1).

Both N-interviewer and PI-interviewers needed to produce significantly fewer initiatives to bring the interview to an end (50 T-units) in interviews with older N-children and PI-children (see also Roelofs, 1998:88). However, there also proved to be clear differences in interview style, since the PI-interviewers had to be more actively involved than the N-interviewer. First, the PI-interviewers not only gave significantly more feedback, but also expressed more prerequests than the N-interviewer (Table 11.1). For instance, these are general requests for information

1 We prefer the term function instead of 'speech acts', because we do not restrict the different function categories to the most well-known function-pairs in case of the function assertion and narration.

2 ANOVA: no group effect; age effect F(4,165)= 9.77, p<0.0001 (nine-year-old PI-children excluded); One way ANOVA: N-interviewer: F(4,70)= 5.76, p<0.0001; Eta squared .25; R squared .19); PI-interviewers: F(5,114)= 7.01, p<0.0001; Eta squared .24; R squared .20) (nine-year-old PI-children included).

3 ANOVA: the percentage feedback calculated over the number of communicative contributions: F(1,165)=5.54, p<0.02 (nine-year-old PI-children excluded).
The ability to repair and be responsive

frequently used to introduce a new conversational topic (Mazeland, 1992; Roelofs, 1996, 1998). In general, prerequests give children time to activate a certain semantic field in order to be more prepared to answer the specific first pairpart-requests that follow.

Second, the PI-interviewers expressed significantly more assertions (declaratives) and acknowledgements, including tag-questions 'leuk, hè?' (nice, isn't it?) and declaratives with a question-intonation, than the N-interviewer. Both have the function of closing previous conversational topics and indicate interest on the part of the interviewer and require little response from the children (Bishop, Chan, Hartley and Weir, 1998).

The N-interviewer expressed significantly more requests for acknowledgement (single 'yes?' or a 'no?' with rising intonation) than the PI-interviewers. In Dutch such requests mostly function as a prompt for further new information. The PI-interviewers had to spend significantly more time and effort asking for a clarification of old information. This phenomenon has been signalled earlier by Adams and Bishop (1989) in interviews with English-speaking school-aged LI-children and with preschool Dutch-speaking (S)LI-children (Van Balkom, 1991). Most requests for clarification concern the content rather than the form, and get a response from the PI-children. This is similar to results found in (S)LI-children (McTear and Conti-Ramsden, 1992; Bishop et al., 2000), although it is known that the ability to adjust and revize prior messages might be restricted (McTear, 1985).

Finally, the PI-interviewers also had to spend more time and effort to keep the PI-children task-oriented and expressed significantly more requests for action/attention (e.g. 'please, sit on your chair!).

The PI-interviewers tried to create smooth interaction by structuring the information and by giving positive feedback (e.g. Smith and Leinonen, 1992:132). We have a strong impression that the PI-interviewer's efforts had a positive influence on the responsivity of the PI-children. Without this effort the interview might never have been completed in certain cases. Some PI-children gave the impression to be rather unmotivated to share information with an unfamiliar adult about everyday-life events (see 2.3.1) probably related to their limited mastery of morphological/syntactic form (Miller, 1991) (see 4.2) or the awareness of the morphological/syntactic inability to communicate effectively (Hadley and Rice, 1991). In the following, we will explore whether the PI-children are as responsive as the N-children. And, is there comparable development with age?

It is possible that these differences in the PI-interviewers’ interview style supported the PI-children to such an extent that they will show no differences in responsivity.

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4 ANCOVA with the number of episodes as covariate; Prerequests: $F(4,164)=14.62, p<0.001$; Assertions: $F(4,164)=2.99, p=0.021$; Acknowledgements: no significant group effect (nine-year-old PI-children excluded).

5 ANCOVA with the number of first pairparts as covariate; group effect $F(1,164)=169.43, p<0.0001$ (nine-year-old PI-children excluded).

6 ANCOVA with the number of first pairparts as covariate; group effect $F(1,164)=49.93, p<0.001$ (nine-year-old PI-children excluded).

7 ANCOVA with the number of first pairparts as covariate; group effect $F(1,164)=63.66, p=0.0001$ (nine-year-old PI-children excluded).
If they still show differences, then it will be in spite of the PI-interviewers' greater support.

First, we will examine areas of language difficulty with respect to responsiveness, by considering the amount of missed turn chances (11.2) and minimal responses (11.3). Then we will consider areas of responsiveness in terms of second pairpart functions (11.4) and extended discourse with a narrative character (11.5). Next, we will present the results with respect to the ability to repair conversational breakdowns, measured by the amount of repairs (11.6) and requests for clarification (11.7), ending with the overall conclusion about the PI-children's responsivity (11.8).

11.2 Missed Turn Chances

11.2.1 Research questions, definitions and operationalisations
Each first pairpart expressed by the interviewer is a chance for children to take a turn and to express a second pairpart. This second pairpart is conditionally relevant as it is pragmatically expected (Schegloff and Sacks, 1973; Mazeland, 1992; see 10.5.1). When children do not react with a second pairpart, this semantically/pragmatically marked behaviour is coded as missed turn chances. These are divided into missing second pairpart where the child does not respond (Example 1) and second pairpart breaks that are almost absent second pairparts (Example 2).

Example 1 Missing second pairpart (PI-child; age 7;7); conversational topic: buying a pet in the near future

Sander:
we kopen er wel een.
(Int: we will buy one)

Interviewer:
wat gaan jullie kopen?
(Int: what will you buy?)

Sander: #2 vertel der eens over.
(Int: #2 tell me about it)

Example 1

In Example 1, the PI-interviewer waits and gives the PI-child a chance to respond, but when no reaction comes, this is coded as a missing second pairpart (see also 10.5). Then, the PI-interviewer has to take a new verbal initiative. We use this information to detect PI-children's semantic/pragmatic difficulties in responsivity.

8 'No turn' is transcribed as '0'; see for transcription symbols Appendix 4a.
9 Completely unintelligible communicative contributions were excluded from the analysis from the beginning (see 10.2).
10 The STAP (Van den Dungen and Verbeek, 1994) requires that the interview is repeated when children miss many turn chances.
The ability to repair and be responsive

A nearly totally absent second pairpart is further referred to as a *(second pairpart)* break and scored when a question or other initiative of the interviewer is for the most part unanswered (Example 2).

**Example 2**  
*Second pairpart break (PI-child; age 9.9)*

<table>
<thead>
<tr>
<th>Interviewer: nou, wat dan? (now, what next?)</th>
<th>First pairpart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kevin:→ #5 eh +... (now, what next?)</td>
<td>Second pairpart Break</td>
</tr>
<tr>
<td>Interviewer: #1 weet je niks te verzinnen even? (#1 don't you know what to say for the moment?)</td>
<td></td>
</tr>
<tr>
<td>Kevin: nee. (no)</td>
<td></td>
</tr>
</tbody>
</table>

In Example 2, the PI-child starts a reaction, but no complete message is expressed. The difference between a second pairpart break and a missing second pairpart is that a *break* frequently functions as a claim to take a turn, giving the speaker more time to work out the content. Namely, when a conditionally relevant second pairpart has been started, the expectation is that it will be finished. The listener will wait for completion, which usually follows.

We made a comparative analysis of the number of *missed turn chances* (missing second pairparts + second pairpart breaks) in order to gain insight into the N- and PI-children's responsivity. Problems with responsivity are defined as a significantly high number of missed turn chances. Here, we will explore whether the PI-children have as *many missed turn chances as the N-children. And, is there comparable development with age?* We expect that younger children (N and PI-children) and PI-children leave more initiatives of the interviewer unanswered and that older N- and PI-children are more responsive than younger ones.

### 11.2.2 Results: Missed Turn Chances

From Table 11.2 we see that only a very small percentage of the first pairparts expressed by the interviewer is not (or only partly) answered by the N- and PI-children in this type of conversation. The N-children appear to answer the questions of the N-interviewer less frequently than the PI-children, but these differences proved not to be significant. This result is in line with the results described in section 10.5: as the PI-interviewers waited significantly longer than the N-interviewer for an answer to come (see 10.6), the chance to miss a turn is minimalized for the PI-children.

We observed a significant linear decrease of missed turn chances in the PI-children comparable to the N-children, only when we excluded the nine-year-old PI-children.

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11 ANOVA: no group or age*group interaction effect was observed; age effect: F(4,165)= 5.56, p<0.0001 (nine-year-old PI-children excluded).
12 One-way ANOVA: F(5,114)=5.05, p<0.0001; Eta-squared 0.18; R squared 0.11 (nine-year-old PI-children included)
Chapter 11  Semantic/Pragmatic conversational development

(Roelofs, 1998;90) (Appendix 11; Figure 11a). We expect that with age the PI-
children respond more frequently with a second pairpart or extended turns, although
these reactions might still be minimal, inappropriate, and so on.

Table 11.2  The percentage missed turn chances (calculated over the number of first pairparts
expressed by the interviewer) in interviews with 75 N-children (Roelofs, 1998) and
100 PI-children in the age of 4 to 8 years

<table>
<thead>
<tr>
<th>Missed turn chances</th>
<th>N-children n=75</th>
<th>PI-children n=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missed turn chances</td>
<td>3.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Missing second pairpart</td>
<td>3.2%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Second pairpart break</td>
<td>0.4%</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

However, we noticed a considerable individual variation in the number of missed
turn chances. If we excluded the outliers in both N- and PI-population (see Wilcox,
2002)\textsuperscript{13}, we observed that from age six on most N- and PI-children follow the
conditional relevance rule (Schegloff and Sacks, 1973; Mazeland, 1992; see 10.5.1).

After a more detailed inspection of the data, we also observed that in interviews with
N-children mostly initial speech overlap (see 10.6) caused a break. This
phenomenon can be interpreted as a normal pragmatic politeness strategy (McTear
and Conti-Ramsden, 1992). The majority of the breaks in interviews with the PI-
children was caused by the fact that they started a turn, but suddenly did not know
what to say next.

Missing second pairparts (no answers) were most frequently elicited by a request for
acknowledgement in the interviews with the N-children. Conversely, these missing
second pairparts were most frequently elicited by a request for information in inter-
views with the PI-children, although also by a request for acknowledgement (e.g.
indirect requests for more specific information). Missing second pairparts thus were
not elicited in the PI-children with requests for clarification. This means that the PI-
children mostly can fulfil the semantic/pragmatic demands of clarification requests
in spite of linguistic deficiencies, similarly to the findings from earlier studies that
show that LI-children recognize that requests for clarification require a response
(e.g. Porter and Conti-Ramsden, 1987). However, the answers to requests for
clarifications can still be not explicit enough, for instance, when coded as minimal
responses (see 11.3.2).

\textsuperscript{13} If a normal distribution exists, but outliers tend to appear (conventionally outliers have scores more
than two standard deviations from the mean), any method based on means can have poor power
(Wilcox, 2002:400). When outliers are excluded, more common patterns can be observed.
11.2.3 Conclusion: Missed Turn Chances
As opposed to the English-speaking LI-children with pragmatic disorders who frequently gave no responses to questions in conversation (e.g. Bishop et al., 2000), the PI-children unexpectedly did not leave more initiatives of the interviewer unanswered compared to the N-children. This probably was caused by the PI-interviewers' patience, since they waited a relatively long time for an answer to come. As expected, the decrease in missed turn chances over time signals that both N- and PI-children become more responsive with age.

11.3 Minimal Responses

11.3.1 Definitions, research questions and operationalisations
When children follow the semantic/pragmatic rule of conditional relevance, they give second pairpart responses. But second pairparts expressed by the child can be categorized as informative (enough information) or as minimal response (not enough information) (Roelofs, 1998:85-86). Minimal responses do not contain enough relevant information to questions that actually prompt for content information (Peterson and McCabe, 1983), such as the first question about a new conversational topic. These minimal responses are different from responses to non-information-soliciting first pairparts expressed by the interviewer, such as tag-questions or declaratives with a question intonation. Then 'yes' or 'no' are expected as an answer and are semantically/pragmatically correct (e.g. Bishop et al., 2000). Minimal responses can have the form of verbal yes/no answers, non-verbal equivalents (nodding/shaking the head), elliptical answers (don't know) or non-elliptical answers (that I don't know) in the form of one T-unit, on which no communicative contributions in the same turn follow. Minimal responses provide no new information other than confirmation, denial or statement of ignorance (Adams and Bishop, 1989).

In the course of their development, we expect that N-children learn to respond to all kinds of initiatives from the interviewer, independently of the functions and/or forms of these initiatives. However, to answer appropriately can be relatively more difficult in the case of indirect speech acts, where function and form are not explicitly related to one another14 (Searle, 1969; Sperber and Wilson, 1986). The fact that many indirect requests for acknowledgement remained unanswered in both populations confirms this idea (see 11.2). Similarly to the analysis of missed turn chances, we therefore will check whether minimal responses are elicited more frequently by indirect than direct speech act functions. Both indirect first pairparts (Example 3 and 4) and direct, open first pairparts (Examples 5 and 6) may elicit minimal responses.

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Example 3  
**Minimal response to a request for acknowledgement (PI-child; age 7;7)**

**Interviewer:** hebben jullie thuis ook huisdieren?  
(do you have pets at home too?)

**Sigrid:** nee  
(no).

**Interviewer:** nee?  
(no?)

**Sigrid:** nee.  
(no)

**Paraphrasing:** waarom niet?  
(why not?)

Example 4  
**Minimal response to a request for acknowledgement (PI-child; age 4;4)**

**Interviewer:** heb je ook vriendjes?  
(do you have friends too?)

**Robin:** ja.  
(yes).

**Interviewer:** ja?  
(yes?)

**Robin:** ja.  
(yes)

**Paraphrasing:** wie zijn je vrienden?  
(who are your friends?)

In Examples 3 and 4, the PI-interviewers' intention was to get more new and specific information (see paraphrases). PI-children might wrongly interpret requests for acknowledgement, because (1) they stick to the literal interpretation, as if the previous question was asked again, or (2) they assume that the interviewer is questioning the sincerity condition of the answer given and wants to know if the PI-child has told the truth (e.g. Searle, 1969). The content, function and form of a request for acknowledgement is the most implicit compared to other speech acts, and the right pragmatic interpretation is highly dependent on children's ability to take into account the interviewer's interest in new, detailed information about the ongoing conversational topic. However, Example 5 and 6 illustrate that PI-children can give minimal responses to rather simple, open and direct questions.

Example 5  
**Minimal response to a request for information (PI-child; age 5;3)**

**Interviewer:** speel je weleens met Chantal?  
(do you play sometimes with Chantal?)

**Richard:** ja.  
(yes).

**Interviewer:** wat doen jullie dan?  
(what do you do/play?)

**Richard:** dat weet ik niet  
(I don't know)

Similarly, PI-children might wrongly interpret requests for information for different reasons. Firstly, they might not comprehend the question-word (such as what, how, why, and so on) or they might be confused by the possibility of more than one right interpretation of the question asked. Then, they seem to be unable to resolve this confusion with either a request for clarification (e.g. do you mean 'what do you play
most of the time?) or by picking out just one possible interpretation, probably because they are afraid of giving a wrong answer. Secondly, when no answer comes to mind, PI-children seem to have problems with the social-cognitive abilities involved in creatively composing a suitable answer. In Example 5, for instance, the PI-child has to reactivate a representation of a playing scene in order to give a description. In order to talk about scenes, mental representations of situations or events have to be reactivated, being part of a Theory-of-Mind (Perner, 1991; Wellman, 1992; see 2.3.3). PI-children may have problems with developing the ability to reactivate mental representations of scenes or cannot put them into words. Thirdly, as mentioned before, PI-children may avoid giving a more elaborate answer, probably related to their limited mastery of morphological/syntactic form (Miller, 1991) (see 4.2) or the awareness of the morphosyntactic inability to communicate effectively (Hadley and Rice, 1991). Fourthly, when PI-children are put slightly under pressure to show extravert language behaviour, it is plausible that the PI-children, especially those with Anxiety disorder, produce relatively many minimal answers because of more general feelings of uncertainty. Finally, N- and PI-children may give minimal responses when they do not want to talk about certain conversational topics (Example 6).

Example 6  Minimal response to a request for information (PI-child; age 9;5)

Interviewer: en hebben jullie weleens ruzie?
Sebastiaan: ja.
Interviewer: waarover?
Paraphrasis: waarover heb je weleens ruzie met je zus?
Sebastiaan: Ø weet ik niet.
Sebastiaan: nou bijna niet nee.
Interviewer: nee?
Sebastiaan: nee.

Example 6 shows that family affairs can be a conversational taboo, since school-aged children are known to be very loyal to their family. A few nine-year-old PI-children gave the impression that even their every day life experiences were private and thus not a topic to talk about. Minimal responses can be caused not only by linguistic difficulties, but also by lack of creativity and motivation. Although we are aware of such differences, we can not be sure in each single case what has caused the minimal response. This is a matter of interpretation. Taking into account, however, that indirect requests elicit more minimal responses than direct requests, especially in the PI-children, we want to explore this supposed dependency.
We made a comparative analysis of the number of minimal responses in order to gain insight into the N- and PI-children's responsivity. Problems with responsivity are defined as a significantly higher number of minimal responses. Here, we will explore whether the PI-children produce as many minimal responses as the N-children. And, is there comparable development with age? We might expect that younger N- and PI-children and PI-children produce more minimal answers and that older N- and PI-children and N-children are more responsive.

11.3.2 Results: Minimal Responses
From Table 11.3, we see that at rough computation at least 10% to 11% of all communicative contributions expressed by the N- and PI-children respectively, are judged as minimal responses. Although difficult to compare, these rates seem relatively high when compared to the rates reported in pragmatic LI-children (Bishop et al., 2000).

Table 11.3 The percentage minimal responses (calculated over the number of second pairparts in the form of a non-verbal or verbal yes/no answer, ellipsis and T-unit answer) expressed by 75 N-children (Roelofs, 1998) and 100 PI-children (4;0 to 8;11 years)

<table>
<thead>
<tr>
<th>Minimal responses</th>
<th>N-children (n=75)</th>
<th>PI-children (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>minimal response</td>
<td>non-minimal response</td>
</tr>
<tr>
<td>Non-verbal yes/no answer</td>
<td>23%</td>
<td>77%</td>
</tr>
<tr>
<td>Verbal yes/no answer</td>
<td>11%</td>
<td>89%</td>
</tr>
<tr>
<td>Clausal ellipsis</td>
<td>1%</td>
<td>99%</td>
</tr>
<tr>
<td>T-unit</td>
<td>10%</td>
<td>90%</td>
</tr>
</tbody>
</table>

In both N- and PI-children an equal amount of minimal responses in the form of elliptical answers15 and T-units16 were elicited: no significant group effect was found. However, when taking these two measures together, the PI-children (14%) express significantly more minimal responses17 than the N-children (11%).

Next, we see that the PI-children give twice as many minimal non-verbal18 and verbal yes/no responses19 than the N-children (Roelofs, 1998). In this way they

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15 ANCOVA with the total number of elliptical responses as covariate (nine-year-old PI-children excluded).
16 ANCOVA with the total number of T-unit responses as covariate (nine-year-old PI-children excluded).
17 ANCOVA with the total number of (non)elliptical responses as covariate; group effect F(1,163)=7.43, p<0.007 (nine-year-old PI-children excluded).
18 ANCOVA with the total number of non-verbal yes/no responses as covariate; group effect F(1,163)=13.57, p<0.0001 (nine-year-old PI-children excluded); no linear age effects were observed in both populations.
The ability to repair and be responsive

293

resemble younger N-children and same-aged (S)LI-children (Rosinski-McClendon and Newhoff, 1987; Adams and Bishop, 1989). Remarkably, even in the oldest PI-children a relatively high frequency of minimal *non-verbal* yes/no-responses is found. This behaviour resembles that of younger N-children (Bishop, 1997), but shows that the PI-children are quite unlike pragmatic LI-children. Recent research reports that pragmatic LI-children tend to prefer to give 'no answer' rather than to give minimal answers, they seeming to be unaware of semantic/pragmatic conversational demands (Bishop et al., 2000). The PI-children prefer to give minimal responses rather than no responses (see 11.2).

When we investigated the possible influence of the (in)directness of the interviewer's initiatives on the non-responsiveness of the N- and PI-children (Appendix 11: Table 11 a), we observed that minimal responses are significantly more frequently elicited in the PI-children than in the N-children by requests for information and clarification, followed by requests for acknowledgements. In this respect, the PI-children are quite unlike N-children. Minimal responses were most frequently elicited in N-children (as young as four years) by other speech act functions than requests for information or clarification (Bishop et al., 2000). As opposed to younger N-children, the PI-children respond most frequently with minimal responses to information-soliciting requests.

Next, in order to explore the possible influence of the (in)directness of the interviewer's initiatives in even more detail, we divided requests for information and clarification into relatively more direct/open questions, such as wh-questions or alternative questions as opposed to relatively more indirect/closed questions, such as yes/no questions and tag-questions. Requests for information and clarification in the imperative or declarative form are judged to be the most indirect speech act function/form mappings.

In Table 11.4 we present the total percentage of non-minimal responses to a first pairparts with the function request for information and clarification expressed by the N- and PI-interviewers. We see that in the conversational interview genre many minimal responses expressed by the N-children are elicited by the N-interviewer with a request for information (33%) calculated over all requests for information and with a request for clarification (11%) calculated over all requests for clarification. Even more minimal responses expressed by the PI-children are elicited by the PI-interviewers with a request for information (48%) and with a request for clarification (34%). We also present the percentages minimal responses expressed by the N- and PI-children elicited by forms that differ in directness. The PI-children proved to give significantly more minimal responses to a request for information and clarification in the form of a yes/no-question (relatively more indirect/closed) and in the

19 ANCOVA with the total number of verbal yes/no responses as covariate; group effect F(1,163)= 18.59, p<0.0001 (nine-year-old PI-children excluded); no linear age effects were observed in both populations.

20 These results do not correspond with Roelofs (1998:113), because we included minimal responses in the form of (non)elliptical contributions.

21 ANCOVA with the number of requests for information in the form of a yes/no-question as covariate. group effect: F(1,164)= 52.47, p<0.0001 (nine-year-old PI-children excluded).
declarative form (relatively most indirect) than the N-children. These findings are comparable to earlier similar results that signalled LI-children’s difficulties in answering sufficiently to indirect requests (Shatz, Bernstein and Shulman, 1980).

Table 11.4 The percentage minimal responses expressed by 75 N-children and 100 PI-children (4;0 to 8;11 years) as reaction to the N- and PI-interviewer’s requests for information/clarification in the interrogative, imperative and declarative form

<table>
<thead>
<tr>
<th>Minimal Responses</th>
<th>N-children n=75</th>
<th>PI-children n=100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>to a request for information</td>
<td>to a request for clarification</td>
</tr>
<tr>
<td>Total % non-minimal and minimal responses</td>
<td>67%</td>
<td>89%</td>
</tr>
<tr>
<td>% non-minimal responses</td>
<td>33%</td>
<td>11%</td>
</tr>
<tr>
<td>% minimal responses</td>
<td>67%</td>
<td>89%</td>
</tr>
<tr>
<td>Interrogative</td>
<td>21%</td>
<td>9%</td>
</tr>
<tr>
<td>wh-question</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>alt-question</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>tag-question</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>yes/no-question</td>
<td>13%</td>
<td>6%</td>
</tr>
<tr>
<td>Imperative</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>Declarative</td>
<td>8%</td>
<td>2%</td>
</tr>
</tbody>
</table>

With respect to requests for information and clarifications in the forms of a wh-question or tag-question (relatively most direct/open) no main effects were observed, except that the PI-children also gave significantly more minimal responses to a request for information in the form of an alternative question (relatively more direct/open) than the N-children. Importantly, these results signal a clear semantic/pragmatic language delay in the PI-children, since they seem unable to respond appropriately to indirect speech acts that are characterized by the absence of a one-to-one form/function mapping. The PI-children must therefore have severe difficulties in interpreting pragmatic intentions of such indirect speech acts. Similar language difficulties have been reported to exist

22 ANCOVA with the number of requests for clarification in the form of a declarative as covariate; group effect: F(1, 164) = 8.01, p < 0.002; age effect F(4, 164) = 5.45, p < 0.001 (nine-year-old PI-children excluded).

23 ANCOVA with respectively the number of requests for information in the form of a declarative as covariate: group effect F(1, 164) = 9.14, p < 0.003; no age or interaction effect found (nine-year-old PI-children excluded).
in English-speaking five- and six-year-old LI-children (Shatz, Bernstein and Shulman, 1980) and especially in LI-children with semantic-pragmatic disorder (Bishop and Rosenbloom, 1987). The PI-children also seem to miss the semantic/pragmatic meta-linguistic insight or overview that all initiatives of the interviewer are intended to make them talk.

11.3.3 Conclusion: Minimal Responses
The N-children proved to be able to react communicatively to many first pairparts of the N-interviewer, independent of their function and/or form. The PI-children on the other hand gave significantly more minimal responses than the N-children, especially to indirect requests for information and clarification in the closed-question interrogative or declarative form.

As mentioned before (see 11.2) this high amount of minimal responses in the PI-children may be related in general to receptive language difficulties and/or expressive language difficulties, and to a lack of creativity and motivation, such as the fear to make mistakes or the unwillingness to talk.

11.4 Functions of Second Pairparts

11.4.1 Research questions, definitions and operationalisations
As shown in Table 11.1, an adequate response can be a second pairpart. Second pairparts contain the function of answer, clarification, acknowledgement or response. When the second pairpart is the first contribution of a long turn, it is part of extended discourse that can have either an assertive or a narrative function.

From the developmental literature we know that from age two to three on, N-children acquire many different speech act function/form types, such as imperatives to direct behaviour of others ('look! look!') or expressive acts to inform others about their feelings ('bah! bah!'). Before age four/five, N-children have learned different morphological/syntactic structures that can have varying functions in the discourse (e.g. Ninio and Snow, 1996) From age six on, school-aged children learn to use new speech act functions typical for school settings, and they will learn to express successive speech acts in extended discourse. Together these speech acts – for instance assertions in an argumentation – mostly function to attain one higher communicative goal to get things done (Baker, Blankenstijn and Roelofs, 1999, 2000).

In LI-children as well as in PI-children there may be limitations with respect to the use of speech act functions (Ninio, Snow, Pan and Rollins, 1994). Firstly, their range of speech acts can be limited. For instance, some LI-children prove to be poor in repairing conversational breakdowns with a 'request for clarification' or a 'repair' (e.g. Donahue and Bryan, 1985) and in giving responses to indirect requests (Shatz, Bernstein and Shulman, 1980). Such limited speech act ranges are also found in PI-children with internalizing disorders (Schecterman, Wollner and Geller, 1978), in PI-children on the autistic spectrum (Prizant and Rydell, 1984) and in schizophrenic and autistic PI-children (e.g. Cunningham, 1968). In some PI-children informative
responses to questions are found missing sometimes (Ninio, Snow, Pan and Rollins, 1994) (see 11.2; 11.7). Conversely, normal conversational responsivity was observed in a group of Dutch-speaking LI-children (Willemsen-Swinkels, Buitelaar and Van Engeland, 1997). Limitation can also be caused by the overuse of certain communicative functions. For instance, some PI-children on the autistic spectrum show a stereotype, routine-like overuse of requests for information that solely function as initiations and maintenances of social contact rather than for obtaining information (Hurtig, Ensrud and Tomblin, 1982). The range of forms to express certain speech acts might also be rather limited, when, for example, only gestural 'intentions' are expressed instead of overt verbal requests, such as has been seen in PI-children on the autistic spectrum (Wetherby and Prutting, 1984). Limitations with respect to the use of speech acts might also be found in a limited effective use of speech act functions. This has been frequently noticed in PI-children and LI-children with semantic-pragmatic impairment (e.g. Gallager and Prutting, 1983; Rapin and Allen, 1983, 1987).

It is important to bear in mind that the distribution of first pairpart functions expressed by the N- and PI-interviewers (see 11.1) mirrors the second pairparts functions expressed by the N- and PI-children, respectively. In the conversational interview genre these functions are almost restricted to the following functionally contingent pairs: request for information-answer; request for clarification-clarification; request for acknowledgement-acknowledgement; request for action-response or request for attention-response (Table 11.1).

From Roelofs (1998:106) we know that in the N-children these four second pairpart functions decrease with age in favour of extended discourse with an assertive or narrative character. In the conversational narratives the N-children gave more information than was directly asked for, reflecting complex and sophisticated language skills and responsiveness to indirect requests. Thus, we expect to find a linear decrease with age of the second pairpart functions (answer, clarification, acknowledgement and response) in the PI-children, comparable to the N-children, although the PI-children might show a delayed (or deviant) development (Ninio, Snow, Pan and Rollins, 1994).

Based on what we know about the differences between the N-interviewer and PI-interviewers’ eliciting behaviour (see 11.1), we expect that the PI-children react more frequently with a clarification than with an answer compared to the N-children. Additionally, we expect that the PI-children produce fewer acknowledgements, since the PI-interviewers produced fewer requests for acknowledgement.

Four functions of second pairparts expressed by the N- and PI-children will be analysed in order to explore the responsivity of the PI-children as compared to the N-children: answer, clarification, acknowledgement and response. The examples show the function-to-form mapping of second pairpart functions. Ideally, the form of an answer or clarification can be a (non)verbal yes/no-answer as response to yes/no-question (Examples 7) or an ellipsis/T-unit as response to an open question (Example 8).
The ability to repair and be responsive

Example 7  
Answer (PI-child; age 7;6)

Interviewer: en zou jij graag een huisdier willen hebben?  
(and would you like to have a pet at home?)

Jeroen: no.  
(no)

Example 8  
Clarification (PI-child; age 7;6)

Interviewer: trekker spelen?  
(play trailer?)

Jeroen: ja (yes).

Interviewer: hoe gaat dat dan?  
(how does it work?)

Jeroen: nou, dan heb je een trekker.  
(now, then you have a trailer).

The form of an acknowledgement elicited by a request for acknowledgement is limited to a (non)verbal yes/no-answer (Example 9).

Example 9  
Acknowledgement (PI-child; age 6;11)

Johnny: alleen huizen kan je maken  
(one can only make houses [with Lego])

Interviewer: ja?  
(yes?)

Johnny: O.  
(nods)

The form of a response elicited by an assertion or a request for action/attention is limited to a (non)verbal yes/no-answer (Example 10).

Example 10  
Response (PI-child; age 9;11)

Interviewer: dus dat was een echte pestpapegaai.  
(so that really was a teasing parrot)

Stefan: ja.

We made a comparative analysis of the number of second pairparts and different second pairpart functions (answers, clarifications, acknowledgements and answers) in order to gain insight into the N- and PI-children's responsivity. Problems with responsivity are defined as a significantly lower number of second pairparts (then the amount of extended discourse will be relatively higher), a lower number of answers and a higher number of clarifications. Clarifications concern only the explication of old information and therefore indicate difficulties in giving understandable new information.

Here, we will explore whether the PI-children produce as many second pairparts that function as answers and clarifications as the N-children. And, is there comparable development with age? We expect that with age the number of second pairparts will decrease in favour of an increase of the amount of extended discourse. We also expect on the basis of the PI-interviewers' eliciting behaviour that younger N- and PI-children and PI-children produce relatively fewer answers and more
clarifications and that older N- and PI-children and N-children as a group are more responsive.

11.4.2 Results: Functions of Second Pairparts

From Table 11.5 we see that the production of second pairparts is comparable in the PI- and N-children, as might be expected on the basis of the comparable amount of missed turn chances we found in both populations (see 11.3). When we look at possible age effects, we observe – as expected - a comparable linear decrease of the number of second pairparts with age in the N- and PI-children (Appendix 11; Table 11b). The age effect is even stronger if we include the nine-year-old PI-children. The influence of development is that the older N- and PI-children no longer only give the information asked for, but produce more extended discourse as a more elaborate reaction to first pairparts expressed by the N- and PI-interviewers.

As expected on the basis of the PI-interviewers eliciting behaviour, we see that the PI-children indeed not only express significantly more clarifications, indicating difficulties in giving understandable new information, but also significantly fewer acknowledgements than the N-children. With respect to answers and responses no group effects were found.

Table 11.5 The percentage second pairparts (calculated over the number of first pairparts expressed by the interviewer) and their functions in interviews with 75 N-children (Roelofs, 1998) and 100 PI-children (4;0 to 8;11 years)

<table>
<thead>
<tr>
<th>Functions</th>
<th>N-children n=75</th>
<th>PI-children n=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second pairparts</td>
<td>45%</td>
<td>46%</td>
</tr>
<tr>
<td>Answer</td>
<td>27%</td>
<td>27%</td>
</tr>
<tr>
<td>Clarification</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Response</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

When we focus on the influence of development on second pairpart functions (Appendix 11; Table 11b), we do not observe a linear increase with age of the production of answers in the PI-children as opposed to the N-children, although requests for information expressed by the PI-interviewers increase with the PI-children's age. The absence of this developmental trend in the PI-children confirms

24 ANOVA: percentage 'second pairparts' on the first pairparts expressed by the interviewer: age effect F(4,165)= 8.99, p<0.0001 (nine-year-old PI-children excluded).
25 Oneway ANOVA: percentage 'second pairparts' calculated over the first pairparts expressed by the interviewer; N-children: F(4,70)= 5.41, p<0.001; Eta squared .23; R squared .18; PI-children: F(5,114)= 6.88, p<0.0001; Eta squared .23; R squared .20 (nine-year-old PI-children included).
26 idem; group effect F(1,164)= 37.41, p<0.0001; age effect F(4,164)= 3.56, p<0.008 (nine-year-old PI-children excluded).
27 idem; group effect F(1,164)= 84.93, p<0.0001; age effect F(4,164)= 6.75, p<0.0001 (nine-year-old PI-children excluded).
28 Oneway ANCOVA (Polynomial contrast) with the same covariate: N-children: F(4.69)=3.09, p<0.021; Linearity p<0.0001.
that especially older PI-children seem to have problems with the delivery of new information. They leave more requests for information unanswered (although not significantly; see 11.2) or give pragmatically inadequate, semantically unrelated responses that could not be coded as contingent answers (see 12.4). Remarkably, we observed a linear decrease in the production of clarifications with age in the PI-children comparable to the N-children. This means that the linguistic messages of the PI-children become more intelligible with age. With respect to acknowledgements and responses no linear age effects were found.

11.4.3 Conclusion: Function of Second Pairparts
The PI-children produce as many second pairparts as the N-children. These decrease with age in favour of the production of extended discourse. Despite this quantitative similarity, there are some qualitative differences. For instance, the PI-children had to express more clarifications. These results signal the existence of semantic/pragmatic difficulties in giving understandable, new information, although with age the intelligibility of the PI-children's messages improves: the older PI-children are significantly less frequently asked to give clarifications. Thus, contrary to what might have been expected on the basis of the developmental literature (e.g. Ninio, Snow, Pan and Rollins, 1994), the results suggest that the PI-children do not have a restricted range of speech act functions. They only have to produce more clarifications, under the influence of the PI-interviewers' requests. These, in turn, are caused by the PI-children's unintelligibility due to other morphological/syntactic problems (see 4.2). The clarifications may still be judged as semantically/pragmatically marked (Chapter 12 and 13), for instance as non-contingent with the content or intention of the request expressed by the PI-interviewer (see 12.4).

11.5 Extended Discourse with a narrative character
11.5.1 Research questions, definitions and operationalisations
Responsivity was also measured by the amount of extended discourse, i.e. successive, communicative contributions with a narrative character. These form a more elaborate reaction to a question asked by the interviewer (Ninio and Snow, 1996).
From the developmental literature, we know that from age three/four on, N-children can give descriptions of routines or explanations (Donaldson, 1986; Schaerlaeckens and Gillis, 1987; Barbieri, Colavita and Scheuer, 1990) and tell anecdotes (Eisenberg, 1985) in two to three semantically contingent, successive contributions in familiar contexts (Baker, Blankenstijn and Roelofs, 1999). From age five on, N-children learn to produce longer stretches of extended discourse, such as jokes, anecdotes and conversational mini-narratives, explanations, definitions, and descriptions (e.g. Pace and Feagans, 1984; Karmiloff-Smith, 1986; Schaerlaeckens

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29 One way ANCOVA (Polynomial contrast) with the same covariate; N-children: F(4,69)= 3.16, p<0.019; Linearity p<0.001; PI-children: F(5,113)= 2.35, p<0.045; Linearity p<0.001 (nine-year-old PI-children included).
and Gillis, 1987; Ninio and Snow, 1996). In order to tell a story about every day events, such as what happened at school, the child must have some knowledge of sequences of events, called script knowledge (Schank and Abelson, 1977) or event knowledge (Nelson, 1986). The child must also have some prototypic script knowledge of basic emotions (Fischer, Shaver and Carnochan, 1990). Furthermore, N-children start to talk about the there-and-then in a rather subjective, impressionistic style (4;0 to 6;0), developing to a more stereo-type, scriptlike style (6;0 to 8;0). From eight/nine years one, N-children learn to combine the two into a rather adult-like, personal style of talking in longer turns (Schober-Peterson and Johnson, 1993; Berman and Slobin, 1994).

Extended discourse with a narrative character was identified by using three criteria. A conversational narrative must contain two or more successive, uninterrupted communicative contributions. These contributions must be connected to one another in a temporal, causal or logical manner, and must refer to an action or a process (Dik, 1989:97; Roelofs, 1998). Each contribution that belongs to extended discourse with a narrative character was coded as narrative Communicative Contribution (NCC). When a contribution immediately follows a first pairparts and can be coded as NCC, it was not scored as having the second pairpart function (Example 11).

**Example 11**

**Interviewer:** en wat nog? (and what else?)

**Paraphrasis:** en wat [heb je nog aan spullen in je kamer]? (and what else do you have in your room?)

**Tom:** mijn vader, die ken toveren. (my father, he can do magic)

**Tom:** die had eens een keer een lepel op zaterdag. (once upon a time he had a spoon on Saturday)

**Tom:** toen had ie zijn hand erop gedaan. (then he put his hand on it)

**Tom:** moest ik zo deronder doen. (I had to do so)

**Tom:** rub

**Tom:** en toen had ie een vijfentwintigje en een honderdje erin. (and then he had twenty-five guilders and hundred guilders in it)

**Tom:** maar die was voor hem. (but it was for him)

**Tom:** ik mocht het niet hebben. (I was not allowed to take it)

Conversational narratives contain narrative plot elements, such as an orientation (introduction of characters, place and time), a complication (problems; a highpoint), a resolution (the solution of problems) and a coda (the moral of the story) (Labov and Waletsky, 1967) (Example 12). In a coda feelings or attitudes towards the narrative can be expressed. These narrative plot elements are not further analysed in detail as opposed to the analysis of the Frog story plot components (see 14.3).
The ability to repair and be responsive

Example 12 Conversational narrative (PI-child; age 7:4)

Sigrid: en i̱k heb een konijn, een heel rotonijn.
(and I have got a rabbit, a very nasty rabbit)

Sigrid: die bijt altijd het gaas kapot.
(he always bites the netting to pieces)

Sigrid: ‘en die’ en dan gaat ie helemaal bij de buren complication
(<and that> and then he goes all the way to the neighbours)

Sigrid: moeten we hem helemaal terug gaan halen
(we have to go and fetch him back home)

Example 13 Successive assertive CC's (PI-child; age 7:2)

Interviewer: en wie verzorgt de vissen?
(and who takes care of the fish?)

Pieter: nou, ik verzorg de tuinvissen.
(now, I take care of the fish in the garden)

Paraphrasis: (now I take care of the fish in the garden)

Pieter: en Joyce zorgt de eigen vis.
(and Joyce takes care of her own fish)

NCCs are different from contributions that belong to non-narrative extended discourse. These are coded as assertive Communicative Contributions (ACC). This type of extended discourse contains descriptions or explanations about a situation, thing or state of affairs (Dik, 1989:97; Roelofs, 1998:104), but were not further analysed as such (Example 13).

Example 13 Successive assertive CC's (PI-child; age 7:2)

Interviewer: en wie verzorgt de vissen?
(and who takes care of the fish?)

Pieter: nou, ik verzorg de tuinvissen.
(now, I take care of the gardenfish)

Paraphrasis: (now I take care of the fish in the garden)

Pieter: en Joyce zorgt der eigen vis.
(and Joyce takes care of her own fish)

Looking at the spontaneous language production of the N- and PI-children in the conversational interview genre, we not only want to know whether the PI-children are as good as the N-children in the production of extended discourse with a narrative character, but also if there is a comparable development with age. On the basis of the age effect found in the MLT and MLLT (see 10.4) and the observed increase in extended discourse with a narrative character in the N-children over time (Roelofs, 1998), we expect a similar development in the PI-children, although some differences may be found. For instance, English-speaking PI-children on the autistic spectrum show difficulties in narrating about experiences, ordering them by connecting events by place and time characteristics and by giving experiences a personal value by telling them from their own point-of-view (e.g. Capss, Losh and Thurber, 2000). We therefore expect that the Dutch-speaking PI-children may show similar — although probably less severe — problems in this area, producing more ACCs than NCC's.

11.5.2 Results: Extended Discourse with a narrative character

First we checked whether the PI-children produce an amount of extended discourse comparable to the N-children, taking both types together (assertive and narrative). This proved to be the case. The amount increases with age in the PI-children in

30 In Example 12, no coda is expressed, but could have had the form "and I do not like this behaviour" (moral: and therefore I call my rabbit nasty).
31 ANOVA: age effect F(1,165)= 2.55, p<0.041 (nine-year-old PI-children excluded).
the same way as in the N-children (see Roelofs, 1998:89) (Appendix 11; Figure 11b). We have already seen that the PI-children have difficulties in producing Long Turns (see 10.4). We must therefore conclude that the PI-children produce more, but shorter turns for their extended discourse and the N-children fewer, but longer turns.

From Figure 11.1, we first see that both N- and PI-children produce relatively more extended discourse with an assertive character than with a narrative character. Per interview approximately 33% of all communicative contributions in the N-children and 29% of all communicative contributions in the PI-children are characterized as explanation or description of a situation, thing or state of affairs. Per interview approximately only 20% of all communicative contributions form a conversational narrative in the PI-children compared to 18% in the N-children.

When we look at the N-children's development, we see that the N-children produce relatively many successive assertions at age four and that this amount is quite stable over time. The data confirm that the production of extended discourse with a narrative character is a major development in normally developing children during the school years (Ninio and Snow, 1996).

When we compare the PI-children with the N-children, we see that, contrary to our expectations, the percentage ACC's is significantly\(^3\) higher in the N-children (total mean: 33%) than in the PI-children (total mean: 29%). No linear decrease with age in the production of ACC's was observed in either population. The percentage NCC's proved to be comparable in the PI-children (total mean: 20%)\(^4\) and the N-children (total mean: 18%).

According to our expectations, the percentage NCC's significantly increase with age in both populations (Roelofs, 1998:108), although at a slower rate in the PI-children (p<0.004)\(^5\) – mainly caused by the stable amount of conversational narratives expressed by the six to nine-year-old PI-children – than in the N-children (p<0.014). However, the PI-children performed better than we had expected.

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\(^3\) Oneway ANOVA $F(5,114) = 5.01, p<0.0001; \text{Eta squared} .18; \text{R squared} .17$ (nine-year-old PI-children included).

\(^4\) ANCOVA with the number of communicative contributions as covariate; group effect $F(1,165)=17.71, p<0.0001$; no age- or age*group interaction effect (nine-year-old PI-children excluded).

\(^5\) ANCOVA with the number of communicative contributions as covariate; age effect: $F(4,164)=3.02, p<0.014$ (nine-year-old PI-children excluded).
Figure 11.1  The percentages assertive and narrative communicative contributions that are part of extended discourse expressed by 75 N-children (Roelofs, 1998) and 120 PI-children

11.5.3 Conclusion: Extended Discourse with a narrative character
The production of extended discourse was comparable in both populations and increased linearly with age. Unexpectedly, a comparable amount of extended discourse with a narrative character was produced by the PI-children and N-children. This amount also linearly increased with age in both populations, although at a slower rate in the PI-children than in the N-children. However, these findings say nothing about the quality of the produced extended discourse with a narrative character. The conversational narratives of the PI-children might still contain narrative contributions that possibly can be judged as (partly) incoherent (Chapter 12) or lacking in cohesion (Chapter 13).

11.6 Repairs and Requests for Clarification expressed by the child

11.6.1 Research questions, definitions and operationalisations
When requests for clarification and repairs are expressed, they function as a strategy to keep the conversational going. Requests for clarification, as we have seen, are usually produced by the N- and PI-interviewers (see 11.1). The analysis of the production of repairs by the N- and PI-children gives insight in their ability to deal with ambiguous or inadequate information and to resolve communicative misunderstandings (e.g. Roth and Spekman, 1984; Brinton, Fujiki and Sonnenberg, 1988). Producing repairs and requests for clarification both involve a process of
monitoring the communicative interaction in order to prevent potential communicative breakdowns (Evans, 1985; McTear and Conti-Ramsden, 1992).

Repair can take place in many different layers of communication. Children can use repairs, for instance, to correct a wrong presupposition or formulation of the interviewer, coded as repair interviewer (Example 14).

Example 14  Repair interviewer (PI-child; age 9;2)

Interviewer:  en dan houdt ie op met het gras kapot maken?
               (and then he stops destroying the grass ?)
Bryan:→  het gras slopen.
              (demolish the grass)

In Example 14, the PI-child changes 'kapot maken' (destroy) into 'slopen' (demolish) although this verb is not correct in combination with the object 'grass'. The fact that the correction in itself was incorrect is not important here. The repair was always scored in order to gain insight in linguistic monitoring.

Children can also correct themselves, coded as self repair36. This includes morphological/syntactic and semantic/pragmatic self-corrections, which are both motivated by the need to be understood (Clark and Andersen, 1979; in: McTear and Conti-Ramsden, 1992). Children also have to learn to repair inaccessible information (e.g. 'what did you say?'), turn disruptions ('sorry for interrupting') and uncleanness about the intention of the speaker ('what do you want to say?') (e.g. Ninio and Snow, 1996).
This important semantic/pragmatic ability illustrates not only children's intention to prevent potential communicative breakdown, but also their attempts to adapt their message to the listener's needs, signalling intersubjectivity (see 2.3.3). Many miscommunications stay unrecognized, or even when recognized, remain unresolved. Some are severe enough to make further conversation impossible unless they are repaired (e.g. Ninio and Snow, 1996).

In order to make a functional analysis of repairs and requests for clarification expressed by the N- and PI-children, we first counted all repairs and all first pairparts that function as requests for clarification as opposed to a request for information (Example 15).

Example 15  First pairpart: request for information (PI-child; age 8;11); conversational topic: 'mini-Chinchilla's' (rat-like pet)

Esther:  heb je die wel eens gezien?
         (have you ever seen them?)

Children sometimes produce requests for information, for instance, they want to know where the interviewer lives, how old the interviewer is, if the interviewer has

36 False starts or phonological word corrections within one communicative contributions fall outside the category repair. They were transcribed and put between brackets <>, but were not further analysed.
The ability to repair and be responsive

seen a particular football game, and so on. In this genre, this behaviour can be interpreted as inappropriate friendliness or keeping too little social distance (Example 15). Breaking the rule might be seen as quite charming in younger children, but as children get older this behaviour is judged more negatively in the conversational interview genre. As mentioned above, PI-children on the autistic spectrum have been found to use such questions as routines to initiate and maintain social contact (Hurtig, Ensrud and Tomblin, 1982).

Next to requests for clarification and information, we had to divide a third category other, consisting of both requests for action/attention and first pairpart assertions. These functions were frequently used by children to move to the here-and-now and thus escape from the interview task (Example 16).

Example 16  First pairpart child; request for action (PI-child; age 4;5)

Bas: en mag ik ook aan deze?
(and can I touch this one?)

As mentioned above, communicative breakdowns can also be repaired by using first pairpart self-initiated requests for clarification as opposed to first pairparts request for information. Whereas requests for clarifications are signs of semantic/pragmatic complex behaviour, requests for information are judged as semantically/pragmatically marked behaviour. Here, we want to know whether the PI-children produce as many repairs and requests for clarification as the N-children. And, is there comparable development with age?

Although self-initiated requests for clarification have been observed in English-speaking two-year-old N-children (Foster, 1990; Ninio and Snow, 1996), it has been frequently reported that (young) N-children (Ironsmith and Whitehurst, 1978) and especially (S)LI-children produce repairs relatively infrequent. They have not yet acquired or are delayed in the acquisition of these communication monitoring skills (Bryan, Donahue and Pearl, 1981; Markman, 1981; Brinton, Fujiki and Sonnenberg, 1988; Purcell and Liles, 1992). Leonard (1986), however, reports different results in English-speaking (S)LI-children who produced relatively more requests for clarification than same-aged N-children.

It has been suggested that N-children between two and six years of age (and older LI-children) might erroneously assume that adults' messages are always clear or when they correctly assume that an adult's message is unclear, they are reluctant to indicate otherwise (Jackson and Jacobs, 1982; Bredart, 1984). Before age seven/eight, N-children might therefore avoid resolving communicative breakdowns. Others suggest that N-children within the age range of 2;0 to 8;0 years show an inability to recognize and repair breakdowns (e.g. McTear and Conti-Ramsden, 1992).

We therefore expect that the PI-children as a group and younger N- and PI-children express more requests for information, because they have not yet developed a feeling for role-awareness, and express fewer requests for clarification and repairs,
because they have not yet developed the ability to resolve conversational breakdowns.

11.6.2 Results: Repairs and Requests for Clarification expressed by the child

From Table 11.6 we see that the amount of repairs (N-children: 1%; PI-children: 1%) and requests for clarification (N-children: 0.55%; PI-children: 0.35%) are low, similar to earlier reports (e.g. Ironsmith and Whitehurst, 1978). A closer look at the data shows that there are, however, some points at which the N- and PI-children give wrong or non-contingent answers (see 12.4) and thus could and probably should have used a repair strategy, such as a request for clarification.

Table 11.6 The percentage repairs and requests for clarification as one of the possible first pairpart functions (calculated overall communicative contributions) expressed by 75 N-children (Roelofs, 1998) and 100 PI-children (4:0 to 8:11 years)

<table>
<thead>
<tr>
<th>First pairpart functions</th>
<th>N-children n=75</th>
<th>PI-children n=100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repairs</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Total First pairparts</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Request for information</td>
<td>0.16%</td>
<td>0.54%</td>
</tr>
<tr>
<td>Request for clarification</td>
<td>0.61%</td>
<td>0.37%</td>
</tr>
<tr>
<td>Other</td>
<td>0.23%</td>
<td>0.08%</td>
</tr>
</tbody>
</table>

With respect to the amount of repairs and first pairparts no group effect was found. From Table 11.6 we see that the PI-children produce significantly more requests for information than the N-children but significantly fewer requests for clarification. The PI-children's self-initiated requests for information were mostly ignored by the PI-interviewers, whereas the requests for clarification expressed by the N-children were always answered.

Although the percentages are small, the amount of requests for information signal salient semantically/pragmatically marked behaviour in the conversational interview genre; only a few instances per interview may already be an indication for language impairment in the area of semantic/pragmatics. In the N-children, the production of requests for information decreases with age, starting between age five and six (Roelofs, 1998:88 and Roelofs, 1998:109). The older PI-children, however, express significantly more requests for information than the older N-children (Appendix 11; Table 11c). Like LI-children with semantic-pragmatic disorder, these PI-children

37 ANCOVA with the number of communicative contributions expressed by the children as covariate (nine-year-old PI-children excluded).
38 ANOVA: age effect F(4,165)= 4.48, \( p<0.002 \) (nine-year-old PI-children excluded).
39 ANCOVA with the number of first pairparts as covariate; group effect F(1,164)= 14.78, \( p<0.00014 \) (nine-year-old PI-children excluded).
40 ANCOVA with the number of first pairparts as covariate; group effect F(1,164)= 5.22, \( p<0.024 \) (nine-year-old PI-children excluded); no linear age effects were observed in either N-children (Roelofs, 1998:109) or PI-children.
may use questioning as a strategy to avoid being asked more questions that they find
difficult to cope with (e.g. Brinton and Fujiki, 1982; Bishop and Adams, 1989:255). On
the other hand, like LI-children in everyday communication (Bryan, Donahue
and Pearl, 1981; Markman, 1981), the PI-children seldom repair miscommunication
by expressing requests for clarification in the conversational interview genre. The
small percentages indicate that most PI-children did not express any request for
clarification; this can be related to difficulties in noticing mild morphological/
syntactic or semantic/pragmatic inconsistencies in order to repair them (Jackson and
Jacobs, 1982; Bredart, 1984). However, since the amount of requests for
clarification are also very low in the N-children, the most plausible explanation is
that N- and PI-children in this age range show a tendency to avoid communicative
misunderstandings by simply ignoring them; the 'official' situation, being
interviewed by an unknown person in an official setting, may also play a part, since
the N- and PI-children may have ignored misunderstandings in order to be polite or
to avoid losing face (Furrow and Lewis, 1988; McTear and Conti-Ramsdlen, 1992).

11.6.3 Conclusion: Repairs and Requests for Clarification expressed by the
child
Some PI-children and N-children produce a small amount of repairs (1%) and
requests for clarification (less than 1%) in the conversational interview genre. The
PI-children as a group express significantly more requests for information and fewer
requests for clarification than the N-children. These results may signal not only the
existence of semantic/pragmatic problems with role-awareness and keeping social
distance in some PI-children, who asked questions that were over-friendly or over­
personal (e.g. Bishop and Adams, 1989), but also difficulties in solving
miscommunication.

11.7 General conclusions: the ability to repair and to be responsive
We found differences in interview style, namely that the PI-interviewers adopted a
communication facilitating style, characterized by long pauses to give the children
time to think (see 10.4) and by more linguistic support and structuring, for instance
by giving more feedback and asking more prerequests. The PI-children were
performing as well as the N-children, with respect to responsivity, measured by the
amount of missed turn chances, second pairparts and extended discourse with a
narrative character. This is possibly due to the PI-interviewers' style.
The PI-children are comparable to the N-children in the amount of missed turn
chances. This is different from English-speaking pragmatic LI-children (e.g. Bishop
et al., 2000) and is probably the result of the PI-interviewers' patience in waiting
relatively long for an answer. But contrary to the N-children, most breaks were
caused by the PI-children who started but did not finish their turn, probably having
difficulties in planning the content and form of the next turn, while remembering the
information asked for (see 2.2 and 2.3.1).
The PI-children produce as many second pairparts as the N-children and these de­
crease with age in favour of the production of extended discourse. Beside this
quantitative similarity, there are some qualitative differences. For instance, the PI­
children have to express more clarifications. These results indicate more
semantic/pragmatic difficulties in giving understandable, new information, although with age the intelligibility of the PI-children's messages improves. The younger PI-children express an amount of conversational narratives comparable to the N-children, but the older PI-children lag somewhat behind. The quality of conversational narratives will be evaluated for coherence (Chapter 12) and cohesion (Chapter 13). Unlike earlier findings (Ninio, Snow, Pan and Rollins, 1994), the PI-children do not appear to have a restricted range of speech act functions in the conversational interview genre. They only have to produce more clarifications, since their messages are less intelligible.

A clear difference, however, can be seen in the amount of minimal answers. The PI-children, even in the oldest age groups, give significantly more minimal responses, especially more (non-)verbal yes/no answers, than the N-children. And, unlike the N-children who were able to respond to first pairparts independent of their function and/or form, the PI-children give significantly more minimal responses to indirect requests for information and clarification in the closed-question interrogative or declarative form. This result shows that the PI-children have severe difficulties in their semantic understanding of non-literal meaning and pragmatic understanding of indirect intentions.

As expected, the amounts of repairs and requests for clarification are small in the conversational interview with N- and PI-children. The PI-children as a group produce an equal low amount of repairs but significantly fewer requests for clarification than the N-children. Instead, the PI-children produce more semantic/pragmatically marked requests for information.

Thus, despite the PI-interviewers' fine tuned eliciting interview style, the PI-children as a group – but older PI-children even more so – are less responsive, since more than one third of all requests for information and of all requests for clarification expressed by the PI-interviewers elicited only minimal responses. In addition to possible morphological/syntactic difficulties (Chapter 5 to 9), we showed that this was partly related to difficulties in understanding indirect requests and an inability to resolve this semantic/pragmatic misunderstanding.