Continuum of Developmental Language Disorders: Where Does PLI Fall?

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Abstract

Pragmatic Language Impairment (PLI) is a developmental communication disorder, characterized by semantic and pragmatic deficits; relatively adequate phonology and syntax; and mild autistic features. The symptom profile overlaps with Pervasive Developmental Disorder (PDD) and Specific Language Impairment (SLI). The present paper attempts to highlight the differential diagnosis of PLI with common developmental language disorders as SLI and PDD. Two children with speech and language characteristics suggestive of PLI are discussed. Two children (5 yrs each) participated in the study with the complaint of inadequate speech and language skills. Speech and language skills of these two children were evaluated using formal and informal methods. The responses were recorded and were further transcribed for analysis. The obtained profiles of the two children were compared across the profiles of developmental disorders as PLI, SLI and PDD. Case1 presented an early onset, delayed developmental milestones with poor pre-linguistic skills and significant semantic and pragmatic deficits. Case 2, in contrast, showed delayed speech milestones, relatively better pre-linguistic skills and near normal semantic and syntactic skills. Both the cases presented with clear, fluent speech without articulation errors. Pragmatic deficits were prominent in both the cases, with case1 having more severe difficulties. Both case1 and case2 had mildly impaired social skills.Differential diagnosis of PLI with other developmental language disorders is controversial issue. PLI shares features of linguistic processing deficits with SLI on one hand, and deficits in pragmatics, social skills and stereotyped repetitive behaviors with PDD on the other hand. There are no well-defined boundaries amongst these disorders. Additionally, course of PLI is such that it changes the diagnostic category as the clinical picture varies with time. The two cases discussed in the present paper had pragmatic deficits in common, though of varied severity and associated features.

Key words: ***Specific language impairment, Pervasive developmental disorders, Semantics, Pragmatics, Syntax.***

Rapin in 1982, defined Pragmatic Language Impairment (PLI) as a developmental communication disorder, characterized by fluent, well-formed sentences, clear, loose, tangential or inappropriate speech, with difficulty in understanding discourse, having illogical train of thought and relatively better social skills.

Children with PLI speak fluently and clearly in long utterances. They may have a severe impairment in pragmatics and semantics, preservation, and significant word finding difficulty. They usually have excessive variation in pitch and loudness. Children with PLI may have milder deficits in phonological and syntactic skills in the early childhood. They may have semantic deficits like delayed semantic development, usage of words only in the limited contexts, difficulty in the comprehension of meaningful verbal messages, questions, idioms, slang expressions, abstract words and the words that relate to feelings and emotions, and tendency to interpret messages quite literally. These children give inappropriate answers to questions, may show semantic

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paraphasias, and use of circumlocutions (Rapin & Allen, 1983; Adams & Bishop, 1989; Sahlen & Nettlebladt, 1993; Bishop, 2000b). Pragmatic deficits seen in these children include delayed pragmatic development, and impaired communication functions. These children have poor turn taking skills, difficulty in establishing discourse topics, inability to repair communication breakdown, and tangential speech. Their speech is characterized by excessive, irrelevant, preservative utterances, use of self-directed speech in the middle of conversation, and show tendency to answer their own questions (Adams & Bishop, 1989; Leinonen & Letts, 1997; Rapin & Allen, 1983). Several etiologies of PLI have been proposed needing experimental verification. Some of these are environmental, genetic (Conti-Ramsden, Crutchley & Botting, 1997) and neurological factors (Sahlen & Nettlebladt, 1993).

Rapin and Allen first described the condition in 1983, and proposed the term as "semantic pragmatic deficit syndrome". As these children have problem in the specific areas of language, Bishop and Rosenbloom in 1987 changed the term into "semantic pragmatic language disorder". Bishop (2000a) proposed the label "*Pragmatic Language Impairment*"; as children diagnosed SPLD do not necessarily have semantic problems. Further, Bishop (2000b) termed *PLI-plus* for children whose pragmatic problems are disproportionate to their other language limitations, and are not obviously the result of these limitations. In addition, the term *PLI-pure*, was termed for children who have only pragmatic deficits and normal language skills.

Children with PLI initially present with a picture of language delay and receptive language impairment, who then learn to speak fluently, clearly and in complex sentences, with semantic and pragmatic abnormalities becoming increasingly evident as their verbal proficiency increase. Whereas, at first they may be difficult to differentiate from other developmental language disorders, the pattern of verbal deficits looks more distinctive as they grow older (Adams & Bishop, 1989).

As PLI exists in close boundaries of developmental language disorders like SLI and PDD, the differential diagnosis becomes an essential part of assessment. PLI is differentiated with SLI on presence of pragmatic deficits, social skills deficits, and stereotyped utterances/behaviors. Further, children with SLI essentially have impairments in phonological and syntactic skills (generally not reported in children with PLI). Within PDD spectrum, Asperger's can be distinguished from PLI having late onset, relatively normal language skills in presence of poor social skills. However, no distinct symptoms anchor difference between PLI and autism. Autism and PLI are sorted only based on the severity of impairment (PLI having milder symptoms). Deficits in social interaction, stereotyped range of interests, theory of mind, echolalia, eye contact, pretend play, semantic and pragmatic deficits are of lesser degree in PLI compared to PDD (Boucher, 1998; Rapin, & Allen, 1983; Bishop, 1989). Perseveration is another feature of PLI, which is otherwise not seen in developmental language disorders.

Children's Communication Checklist (CCC; Bishop 1998; see Appendix) is of the tests of its type developed to distinguish language-impaired children having pragmatic difficulties and those of typical forms of SLI. This test provides the cutoff scores on pragmatic component (>132 on pragmatic composite indicates SLI), differentiating children with PLI and SLI. Scores between 145 and 156 (on pragmatic composite of CCC) indicate normal range. Bishop and Norbury (2002) conducted a study on 21 children (6 to 9 yrs) with language impairment, who were further categorized based on CCC into 13 children with PLI, and 8 children with typical SLI. Children with PLI scored less than 133 on the pragmatic composite of CCC whereas, children with SLI scored above 132. Thus, CCC can serve as a useful diagnostic instrument in diagnosis of PLI. Although, this instrument lacks validity, yet it can be used as a screening tool.

Precise diagnostic criterion for PLI is not available. Moreover based on the literature findings, there exists variability in the range of features of PLI. The present study attempt to highlight the differential diagnosis of PLI with developmental language disorders as SLI and PDD. Two children with communication features suggestive of PLI with different symptoms and varied severity are discussed.

Method

Two children (5 years old each), with pragmatic deficits without the diagnosis of autism were taken up for the study. Psychological

evaluation was done to identify the deficits in nonverbal intelligence and social skills. Benite Kamat Test (BKT) (measure of nonverbal intelligence) was administered to find out the intelligence quotient (IQ). The social skills were measured using Vineland Social Maturity Scale (VSMS) to obtain social quotient (SQ). Language tests like REELS (Receptive Expressive Emergent Language Scales), Extended REELS & Pragmatic Checklists (Shipley & McAlfee, 1998) was administered. In addition, informal language assessment was carried out using black and white line drawings ("With a little bit of help", language training manual) incorporating tasks like picture naming, picture description, narration, reciting numbers, alphabets and rhymes. The response obtained was transcribed using IPA, and analyzed for different language parameters.

Results

The analyzed language of the subjects are summarized as follows

	CASE 1	**CASE 2**
Name	Master N	Baby A
Age / Gender	5 years / Male	5 years / Female
Language	Kannada	English
Chief complaints	• ↓ attention to speech • Repetition of few sentences • Delayed responses to questions	• Language delay • ↑ level of activity
Onset	• Symptoms were first noticed at the age of 1.6years as language delay & poor eye-to-eye contact.	• Symptoms were noticed by the teacher at the age of 3 years (behavioral deviations as poor social skills, echolalia)
History	• No significant birth & medical history • Family history: -ve • Slight delay in motor development • Delayed language development: -babbling at 8 months -first words at 1.6 years -phrases after 2 years • Social development: delayed recognition of father (at 3 years)	• No significant birth & medical history • Family history: -ve • Normal motor milestones • Delay in language acquisition: -two word utterances at 2.6 yrs -3 word utterances at 3.6yrs • Social development: unable to differentiate between family members & strangers (extra friendly with strangers)
Audiological evaluation	Normal hearing	Normal hearing
Psychological evaluation	• IQ deficits could not be ruled out (BKT) • VSMS: Borderline deficits in social & adaptive functioning • CARS: mild autistic features	• IQ: average intellectual functioning (BKT) • VSMS: average social & adaptive functioning • CARS: non autistic Reported to have autistic like features earlier
Prelinguistic skills	• ↓ attention to speech • Poor eye contact	• ↓ attention span • Good eye contact with family members • Highly distractible
Speech skills	• Respiration: normal • Phonation: pitch & quality age adequate • Articulation: cluster reduction & distortion of /s/ • Prosody: inappropriate intonation pattern & unable to imitate intonation for rhymes • Fluency: fluent speech.	• Respiration: normal • Phonation: pitch & quality age adequate • Articulation: cluster reduction & metathesis • Prosody: inappropriate intonation pattern • Fluency: fluent speech.

Table 1: Case history, pre linguistic and speech skills of the two cases.

The details of the children and their speech and language behaviors are given in Tables 1 & 2. Both children were initially brought with the complaint of language delay. On a detailed psychological and speech-language assessment, case1 was found to have more problem than case2. IQ assessment could not be completed in case1 due to deficits in comprehending the instructions. On the administration of VSMS, he was found to have borderline deficits in social and adaptive behavior. He was diagnosed as having *mild autistic like features*. Case2 presented with

average intellectual functioning and average social and adaptive functioning. She was diagnosed as *non-autistic*. Both cases had fluent and intelligible speech. The prelinguistic skills of case1 were poor. Case 2, in contrast had good prelinguistic skills.

	CASE1	**CASE2**
Language Test results	RLA= 30-33 months ELA= 24-27 months Scattered findings	RLA= 4.6–5 years ELA= 4.6-5 years
Morphology	No comprehension & expression of any morphological markers	Age adequate usage
Semantics	• Vocabulary: restricted & limited use • Can name common lexical items in a few categories • Cannot comprehend emotions & facial expression of others • Irrelevant utterances & perseverations noticed • Presence of delayed & immediate echolalia • Comprehends 1-step commands on several repetitions • Time & place concept absent • Cannot comprehend stories • Picture description absent • Could recite only 1-2 lines of a rhyme with lots of prompts in flat intonation	• Vocabulary: adequate to age • Can name common lexical categories • Can comprehend emotions & facial expression of others • Irrelevant utterances & self talk noticed. Perseveration was absent. • Echolalia: absent • Comprehends simple & complex commands. • Gross time & place concept present • Comprehends & expresses story episodes in a sequence with minimal prompts • Express fairly good on picture description tasks • Recites rhymes without prompts with appropriate intonation
Syntax	• Uses 2-3 word utterances • Adjectives: comprehension is present • Pronouns: uses 1st & 2nd person pronoun; does not comprehend 3rd person pronoun • Does not comprehend gender markers. • Uses few prepositions • Does not comprehend tenses & plurals • Uses 1st & 2nd person possessive markers • Difficulty with polar questions • Inappropriate answers to questions	• Uses 4-6 word utterances • Uses adjectives • Pronoun usage is present • Gender confusion was observed • Preposition confusion is present • Uses regular tense & plural marker correctly, has confusion with the irregular tense & plural markers. • Uses all the possessive markers appropriately • Does not have difficulty with polar questions • Answers appropriately to questions with occasional confusion

	CASE1	CASE2
Pragmatics	• Communicative functions: -attention seeking absent -rarely requests for objects -occasionally protests & denies undesired items -social greetings only with prompts -giving & seeking information absent -comprehension of feelings & facial expression absent • Discourse: -difficulty in topic initiation, maintenance, topic transition & turn taking -giving information absent • Imaginative play absent • Role-taking not attained • Modification in the manner if communication is absent	• Communicative functions: -attention seeking present -requesting is present No request when wants to go to toilet, indicates by pointing -occasionally protests & denies undesired items -social greetings without prompts -giving & seeking information present -comprehends feelings & facial expression • Discourse: -difficulty in topic, maintenance, topic transition & turn taking ; topic initiation present -gives excessive information, inappropriate to the context - word finding deficits • Imaginative play absent • Role-taking not attained • Modification in the manner if communication is absent
Secondary language skills	• Attending school since 2 years • Cannot read & write	• Attending school since 1 year • Able to read & write alphabets, numbers (1-10), small words, her name, & can solve 1-digit addition & subtraction
Behavioral deviations	• Hyperactive & irritable in nature • Prefers to be alone; plays only games like running & chasing with peers • Vacant stares; biting of shirt collar & putting fingers into mouth repeatedly was noticed.	• Hyperactive & easily distractible • Prefers solo play
Stimulation	• Poor stimulation both at home & school	• Good stimulation for language, reading, & writing
Previous treatment	• No previous treatment.	• She was attending special school along with IEP in USA as she was diagnosed to have autistic features. With treatment, there was reduction in echolalia and improvement in all aspects of language including pragmatics.
Present treatment	• Demonstration therapy was carried out for 2 days. • Activities for improving attention, vocabulary, comprehension of questions, reading, & pragmatic skills were carried out.	• Demonstration therapy was given for a month. • Attention enhancement training, activities to improve semantic, syntactic skills, pragmatic, & cognitive skills.

Table 2: Description about the language skills of the two cases.

Case1 had deficits in syntax, semantics and pragmatics whereas case2 had age adequate speech and language skills. Case1 had pragmatic deficits along with the deficits in other areas of language. The second case had only pragmatic deficits. Pragmatic deficits were again more severe in case1. Case2 was previously diagnosed as having autistic like features, at the age of 3 years. She had received Individualized Education Program (IEP) in California for 1-year duration. Parents reported

significant improvement in the performance with respect to reduction in the echolalia, improvement in pragmatic and social skills along with the improvements in other areas of the language. Communicative functions as request, denial, seeking and giving information reported to emerge over the course of treatment. Thus, treatment given for case 2 further accounts for the differences in performances between the two cases.

CHARACTERISTICS	PLI		SLI	AUTISM	PDD NOS	ASPREGER'S
	Case 1	Case 2				
Poor eye contact	✓	✓	x	✓	✓	✓
Language delay	✓	X	✓	✓	✓	X
Phonological deficits	✓	X	x	✓	✓	✓
Semantic deficits	✓	X	x	✓	✓	✓
Syntactic deficits	✓	X	✓	x	x	X
Occasional use of communicative functions:						
- attention seeking	✓	✓	✓	x	x	x
- requesting	✓	✓	✓	x	x	x
- use of denials	✓	✓	✓	x	x	x
- social greeting	✓	✓	✓	x	x	x
- giving & seeking information	x	✓	✓	x	x	x
Poor social skills	✓	✓	x	✓	✓	✓
Impaired discourse	✓	✓	✓	✓	✓	✓
Echolalia	✓	✓	x	✓	✓	✓
Perseveration	✓	✓	x	x	x	X

Table 3: Comparison of the two cases with developmental language disorders. (SLI and PDD)

Table 3 provides comparison of the two cases with PDD and SLI. The check mark (√) indicates presence of a behavior and the cross symbol (x) indicates the absence of that behavior. The table shows absence of communicative functions in children with PDD indicating severely impaired social skills. In case of SLI, the social skills are relatively normal and may have significant deficits in the syntactic and phonological aspects. The difference in the linguistic symptoms between these cases is evident in the table. Case1 shows milder impairment in semantic and syntactic aspects of the language (not seen in case 2). However, the communicative functions of the case2 are better than case1. Both the cases exhibited echolalia, whereas perseveration was observed only in case1. Looking into these characteristics, case 1 was diagnosed as ***PLI-plus*** and case2 as ***PLI-pure***.

Discussion

The two children presented with language deficits predominantly in pragmatics, though scattered. Authors attempted for a differential diagnosis of the cases with similar profiles of PDD and SLI. Due to the stringent criteria each label subscribes to, there was a confusing picture. On psychological evaluation, the deficits in nonverbal intelligence could not be ruled out in case 1, owing to deficits in following the instructions. Case 2 had average intellectual functioning. Although autistic like features such as social interaction problems and echolalia were present in these cases, one must notice that the communication functions were relatively better and behavioral problems were not very severe. Hence, diagnosis of Autism was ruled out. Further, the presence of language delay in case 1 and history of language delay in case2, ruled out the possibility of the diagnosis of Asperger's syndrome. Age of onset (18-24 months for case1) with relatively better social skills in two children, rejects the diagnosis of Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS). Despite the fact that both the cases had milder deficits in semantic and syntactic skills, a diagnosis of SLI was ruled out, in presence of pragmatic and mild social skills deficits.

The social skills deficits in the two children were not as prominent as seen in PDD and more severe in comparison to children with SLI. Hence, these children were eventually placed under the category of PLI, based on presenting symptoms in accordance with literature (Rapin & Allen, 1983; Adams & Bishop, 1989; Sahlen & Nettlebladt, 1993; Bishop, 2000b). Further look into the nature

of semantic syntactic and pragmatic deficits, fluent speech with perseveration and echolalia in case1, a diagnosis of PLI-plus was provided. Case2, alternatively presented with relatively normal semantic, morphological, and syntactic skills (age adequate receptive & expressive language skills) along with echolalia and pragmatic deficits, and hence was given a diagnosis of PLI-pure.

There exists unresolved controversy concerning the diagnostic criteria for PLI, the controversy focusing on the differential diagnosis of PLI, Autism and SLI. Some authors argued quite strongly that PLI and autism are not distinct condition; rather, PLI is an identifiable form of Autism, perhaps a subtype, or mild or atypical manifestation of prototypical autism (Brooks & Bowler, 1992; Shields, Varley, Broks & Simpson, 1996). Bowler and Lister-Brook (1998) rejected the use of the term 'mild autism', considering it misleading in view of the persistent though subtle nature of PLI children's social impairment. Boucher (1998) argued that PLI might constitute a developmental language disorder in its own right, independent of either Autism or SLI. PLI constitutes a distinct subtype of communication disorder. There are qualitative differences between the pragmatic impairments associated with PLI and those associated with Autism (Rapin & Allen, 1983).

Neither of the two internationally recognized set of diagnostic criteria for mental and behavioral disorders, DSM-4 and ICD-10 recognize the existence of PLI. One well recognized difficulty is that criteria for identifying children with PLI is controversial, so the criteria used to select participants vary from study to study with, not surprisingly, confusing results.

Conclusions

Developmental language disorders comprise a spectrum of disorders with varied severity and symptomatology. PLI is one such disorder sharing features of linguistic processing deficits with SLI on one hand, and deficits in pragmatics, social skills and stereotyped repetitive behaviors with PDD on the other hand. Hence, supporting the views of Bishop, (1989) it is not helpful to adopt a rigid response to diagnostic labels, rather a flexible approach is especially appropriate as we come to recognize the broader spectrum of language disorders and increasingly encounter children with social and language impairment of disproportionate severity.

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Appendix: The Children's Communication Checklist

For each statement, the rater is asked to judge whether the statement **DOES NOT APPLY, APPLIES SOMEWHAT, or DEFINITELY APPLIES**. The option 'unable to judge' is also given, but raters are discouraged from selecting this unless they have not had the opportunity to observe the behavior in question. For each scale, the base score is 30. For negative items (shown as –), 2 points are deducted from this total for each item coded **DEFINITELY APPLIES**, and 1 point is deducted for **APPLIES SOMEWHAT**. For positive items (shown as +), 2 points are added to the total for **DEFINITELY APPLIES** and one point is added for **APPLIES SOMEWHAT**. The pragmatic composite is the sum of scales C to G.

A: Speech

1. + people can understand virtually everything he/she says
2. – people have trouble in understanding much of what he/she says
3. + seldom makes any errors in producing speech sounds
4. – mispronounces one or two speech sounds but is not difficult to understand; e.g. may say 'th' for 's' or 'w' for 'r'.
5. – production of speech sounds seems immature, like that of a younger child, e.g. says things like, 'tat' for 'cat', or 'chimbley' for 'chimney', or 'bokkle' for 'bottle'
6. – seems unable to produce several sounds; e.g. might have difficulty in saying 'k' or 's', so that 'cat' and 'sat' are both pronounced as 'tat'
7. – leaves off beginnings or ends of words, or omits entire syllables (e.g. 'bella' for 'umbrella')
8. – it is much harder to understand when he/she is talking in sentences, rather than just producing single words.
9. + speech is extremely rapid

10. – seems to have difficulty in constructing the whole of what he/she wants to say: makes false starts, and repeats whole words and phrases; e.g., might say 'can I- can I- can- can I have an – have an ice cream?'
11. +speech is clearly articulated and fluent

B: Syntax

12. – speech is mostly 2 to 3 word phrases such as 'me got ball' or 'give dolly'
13. + can produce long and complicated sentences such as: 'When we went to the park I had a go on the swings'; 'I saw this man standing on the corner'
14. – tends to leave out words and grammatical endings, producing sentences such as: 'I find two dog'; 'John go there yesterday' 'My grandma cat been ill'
15. – sometimes makes errors on pronouns, e.g. saying 'she' rather than 'he' or vice versa

C: Inappropriate initiation

16. – talks to anyone and everyone
17. – talks too much
18. – keeps telling people things that they know already
19. – talks to himself/herself in public
20. – talks repetitively about things that no-one is interested in
21. – asks questions although he/she knows the answers
22. – it is sometimes hard to make sense of what he/she is saying because it seems illogical or disconnected
23. + conversation with him/her can be enjoyable and interesting

D: Coherence

24. + can give an easy-to-follow account of a past event such as a birthday party or holiday
25. + can talk clearly about what he/she plans to do in the future (e.g. tomorrow or next week)
26. – would have difficulty in explaining to a younger child how to play a simple game such as 'snap' or 'happy families'
27. – has difficulty in telling a story, or describing what he/she has done, in an orderly sequence of events
28. – uses terms like 'he' or 'it' without making it clear what he/she is talking about
29. – doesn't seem to realise the need to explain what he/she is talking about to someone who doesn't share his/her experiences; for instance, might talk about 'Johnny' without explaining who he is

E: Stereotyped language

30. – pronounces words in an over-precise manner: accent may sounds rather affected or 'put-on', as if child is mimicking a TV personality rather than talking like those around him/her
31. – makes frequent use of expressions such as 'by the way', 'actually', 'you know what?', 'as a matter of fact', 'well, you know' or 'of course'
32. – will suddenly change the topic of conversation
33. – often turns the conversation to a favourite theme, rather than following what the other person wants to talk about
34. – conversation with him/her tends to go off in unexpected directions
35. – includes over-precise information in his/her talk, e.g. will give the exact time or date of an event, e.g. when asked 'when did you go on holiday' may say '13th July 1995' rather than 'in the summer'
36. – has favourite phrases, sentences or longer sequences which he/she will use a great deal, sometimes in inappropriate situations
37. – sometimes seems to say things that he/she does not fully understand

F: Use of context

38. – tends to repeat back what others have just said
39. – his/her ability to communicate clearly seems to vary a great deal from one situation to another
40. – takes in just one or two words in a sentence, and so often misinterprets what has been said
41. +can understand sarcasm (e.g. will be amused rather than confused when someone says 'isn't it a lovely day!' when it is pouring with rain)
42. – tends to be over-literal, sometimes with (unintentionally) humorous results. For instance, a child who was asked 'Do you find it hard to get up in the morning' replied 'No. You just put one leg out of the bed and then the other and stand up' Another child who was told 'watch your hands' when using scissors, proceeded to stare at his fingers

43. – gets into trouble because he/she doesn't always understand the rules for polite behaviour and is regarded by others as rude or strange
44. – may say things that are tactless or socially inappropriate
45. – treats everyone the same way, regardless of social status: e.g. might talk to the head teacher the same way as to another child

G: Rapport

46. – ignores conversational overtures from others (e.g. if asked 'what are you making?' just continues working as if nothing had happened)
47. – seldom or never starts up a conversation; does not volunteer information about what has happened
48. – doesn't seem to read facial expressions or tone of voice adequately and may not realise when other people are upset or angry
49. – poor at using facial expression or gestures to convey his/her feelings; he/she may look blank when angry, or smile when anxious
50. + makes good use of gestures to get his/her meaning across
51. – seldom or never looks at the person he/she is talking to: seems to actively avoid eye contact
52. – tends to look away from the person he/she is talking to: seems inattentive or preoccupied
53. + smiles appropriately when talking to people

H: Social relationships

54. + is popular with other children
55. + has one or two good friends
56. – tends to be babied, teased, or bullied by other children
57. – is deliberately aggressive to other children
58. – may hurt or upset other children unintentionally
59. – a loner: neglected by other children, but not disliked
60. – perceived as odd by other children and actively avoided
61. – has difficulty making relations with others because of anxiety
62. – with familiar adults, he/she seems inattentive, distant or preoccupied
63. – overly keen to interact with adults, lacking the inhibition that most children show with strangers

I: Interests

64. – uses sophisticated or unusual words; e.g. if asked for animal names might say 'aardvark' or 'tapir'
65. – has a large store of factual information: e.g. may know the names of all the capitals of the world, or the names of many varieties of dinosaurs
66. – has one or more over-riding specific interests (e.g. computers, dinosaurs), and will prefer doing activities involving this to anything else
67. + enjoys watching TV programmes intended for children of his/her age
68. – seems to have no interests: prefers to do nothing
69. + prefers to do things with other children rather than on his/her own
70. – prefers to be with adults rather than other children

Adapted from Bishop & Baird (2001). Parent and teacher report of pragmatic aspects of communication: use of the Children's Communication Checklist in a clinical setting.