Word-learning in Children with Specific Language Impairment: Theory, Diagnosis and Intervention

A workshop organised by the
UCL Centre for Developmental Language Disorders
and Cognitive Neuroscience

16th June 2006

Chandler House,
University College London
Contents

About I CAN 3
Programme 4
Background to the workshop 5
Abstracts of talks 6
Abstracts of posters 14
About I CAN

I CAN is the charity that exists to help children communicate. There is a growing concern about children’s communication skills. Our special focus is the children who find this hard: children with a communication disability. One in ten children struggle to talk and understand others. This means that 1.2 million children across the UK – an average of three children in every primary school classroom – have some form of communication disability. For some, these problems can be relatively short term. However, others suffer from a severe and persistent communication disability that affects them throughout their education and beyond.

Our aim is to create a world where children have the communication skills to be all they can be. We believe that:

- Communication is a key life skill for all children. It is the foundation from which they build relationships, share experiences and learn
- Children with a communication disability deserve to have the same opportunities in life as other children
- Early identification and support is essential for these children to learn, develop and start school successfully alongside other children
- Families have an important role in supporting children who have a communication disability. We work to ensure that they receive appropriate support, and aim to make their voices heard
- Health and educational professionals need to work together to plan and provide effective services to meet the needs of children with a communication disability
- A range of educational provision is needed to support these children. The majority of children can be successfully included in mainstream education, if schools have the right ethos and access to specialist support, training, information and resources. However, some children with severe and complex needs will continue to need specialist and intensive provision for a part or all of their education

I CAN provides a combination of specialist therapy, education and outreach services for children and young people with a severe and complex communication disability. We also provide information for professionals and parents via our website www.talkingpoint.co.uk and training and advice for teachers and other professionals, so that they are able to support children and young people at home, school and in their community. We work to ensure that the needs of children are taken into account in all government policy and carry out research to find the best ways to support children. We aim to do much more to extend our reach, increase awareness and secure vital resources to support children.

Information for parents and professionals about speech and language development and disabilities can be found at www.talkingpoint.org.uk.

Information about I CAN’s services including its training programme can be found at www.ican.org.uk.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 9:30</td>
<td>Registration</td>
</tr>
<tr>
<td>9:30 – 9:45</td>
<td><strong>Chloe Marshall</strong> (Centre for DLDCN, UCL, UK) – Introduction</td>
</tr>
<tr>
<td>9:45 – 10:45</td>
<td><strong>George Hollich</strong> (Purdue University, USA) – “Word-learning from the earliest stages of typical development”</td>
</tr>
<tr>
<td>10:45 – 11:15</td>
<td>Tea, coffee and biscuits</td>
</tr>
<tr>
<td>11:15 – 12:00</td>
<td><strong>Barbara Hoehle</strong> (Potsdam University, Germany) – “Indicators of SLI in early word processing: Data from a long-term follow-up study with German children”</td>
</tr>
<tr>
<td>12:00 – 12:45</td>
<td><strong>Heather van der Lely</strong> (Centre for DLDCN, UCL, UK) – “Novel noun interpretation in typically developing and Grammatical-SLI children: interactions between ontological and grammatical knowledge”</td>
</tr>
<tr>
<td>12:45 – 2:00</td>
<td>Finger food buffet and poster session</td>
</tr>
<tr>
<td>2:00 – 2:15</td>
<td><strong>Catherine Bray</strong> (Meath School, Ottershaw, UK) – “A multi-sensory approach to word-learning at Meath School”</td>
</tr>
<tr>
<td>2:15 – 2:45</td>
<td><strong>Nick Riches</strong> (Guy’s Hospital, London, UK) – “Helping children with SLI to remember words: the role of frequency and spacing”</td>
</tr>
<tr>
<td>3:15 – 3:45</td>
<td><strong>Natalie Munro</strong> (University of Sydney, Australia) – “Learning about word learning in children with and without SLI”</td>
</tr>
<tr>
<td>3:45 – 4:15</td>
<td>Tea, coffee and cakes</td>
</tr>
<tr>
<td>4:15 – 5:00</td>
<td><strong>Sabine Weinert</strong> (Bamberg University, Germany) – “Naming and categorization in children with SLI”</td>
</tr>
<tr>
<td>5:00 – 5:30</td>
<td><strong>Susan Ebbels</strong> (Moor House School, Hurst Green, UK) – Discussion and summing up</td>
</tr>
<tr>
<td>5:30 – 6:30</td>
<td>Wine reception at the Centre for DLDCN</td>
</tr>
</tbody>
</table>
Word-Learning in Children with Specific Language Impairment (SLI):
Theory, Diagnosis and Intervention

Background to the workshop

Welcome to this workshop, which is organised by the Centre for Developmental Language Disorders and Cognitive Neuroscience, University College London. Our aim today is to explore how children with Specific Language Impairment (SLI) learn words, integrating theories of word-learning and language disorders with clinical issues surrounding how to support children with word-learning difficulties. Some 10% of children in UK schools have a form of communication impairment, and in many cases this impairment affects their ability to learn and use words. Issues that we will be addressing include how young typically developing children learn words; the word learning abilities of young children at risk of SLI; how impairments in the acquisition of the phonology, morphology, semantics and syntax affect word knowledge; the acquisition of concepts by children with SLI; and the diagnosis and therapy of children with word-learning difficulties. The poster session at lunchtime has two aims: to develop these issues, and also to introduce some of the current research at the Centre for DLDCN, research on which many of you are collaborating with us.

Today’s workshop could not take place without the very generous support of the Wellcome Trust, the Economic and Social Research Council and I CAN, the charity that helps children to communicate. We thank them all. We also thank our impressive international group of invited speakers, who have kindly given up their time for us and who come from as far afield as Germany, the US and Australia.

We are joined by teachers, head teachers, speech and language therapists, special educational needs co-ordinators, parents of children with communication difficulties, researchers, and many others whose work supports children’s learning. We are certain that this knowledgeable mix will make for a lively and stimulating workshop, and we hope you enjoy the day as much as we have enjoyed organising it.

With best wishes from us all at the Centre for DLDCN,

Heather van der Lely, Chloe Marshall and Angela Pozzuto
ABSTRACTS OF TALKS
Word-learning from the earliest stages of typical development
George Hollich (Purdue University, USA)

In this talk, I will present the current state of the art in word learning research. Using preferential looking or habituation measures on infants 6 to 24 months of age, researchers are gradually coming to the consensus that word learning is a multifaceted task which involves the complex interactions of multiple dynamic systems. These systems include mechanisms for social understanding (theory of mind or intention), an understanding of linguistic morphology, as well as neural systems devoted to intermodal perception, attention, learning, and memory.

Investigations in my lab, and those of my colleagues, reveal that at its earliest stages, word learning proceeds piece by piece, relying heavily on intermodal perception and domain-general mechanisms of learning and memory. However, concurrently with item-specific word learning, infants appear to be inducing a number of social, cognitive, and linguistic constraints which help them rapidly learn new words and help them predict likely meanings from a range of situations. I hope that this overview of typical word learning in the youngest infants will help shed light on the difficulties experienced by children with Specific Language Impairment.
Indicators of specific language impairment in early word processing: Data from a long-term follow-up study with German children
Barbara Hoehle (Potsdam University, Germany)

Most children with SLI are poor word learners (e.g. Bishop, 1997). One hypothesis is that this problem may be related to persisting phonologically underspecified lexical representations. We tested this hypothesis within a longitudinal study on language acquisition with 92 German children. At the age of 18 months a word comprehension task using the preferential looking paradigm was carried out. In each trial children were presented with two pictured objects or animals, and either the correct name for one of the pictures or a pseudoword differing from the correct word only in the initial phoneme.

At the age of 24 months the lexical and morpho-syntactic performance of these children was tested with a parents’ questionnaire (ELFRA2, Grimm & Doil, 2000). At the age of 30 months language production and comprehension skills of the same children were tested with the SETK 2 (Grimm, 2000). Both tests allow for splitting our participants into a group of children with low language skills and a group of children with average language skills. The separate analysis of the performance of these groups in the preferential looking experiment revealed that the children with average language skills showed a significant increase in target fixation only when presented with the correct name. In contrast, the children with low language performance showed a stronger increase in target fixation when presented with the pseudoword than when presented with the correct word.

This suggests that as early as 19 months there are differences in the word processing skills of typically developing children and children who show low language performance in later language testing. These differences may be one of the factors contributing to the observed delay in lexical and morpho-syntactic development at 24 and 30 months of age. In line with the results from other studies our study provides further evidence that there are indications for being at risk for a developmental language impairment in children’s early language perception and processing.

Novel noun interpretation in typically developing and Grammatical-SLI children: interactions between ontological and grammatical knowledge
Heather K. J. van der Lely (Centre for DLDCN, UCL, UK)

To facilitate children learning new words we need to, first, identify the nature of their deficit, their strengths and their weaknesses. Second, based on this information we need to understand how this will impact on word-learning; and third, identify which types of information or cues they can/cannot use to learn new words.

I will present a series of studies that explores what and how children use different sorts of cues to learn words. Specifically we focus on the influence and interaction of two sources of cues to novel word meaning - ontological category knowledge (‘kind of individual’ versus ‘kind of stuff’) and the syntactic count/mass distinction (cf. a cat/some cats/*a cats vs. *a water/some water/*some waters). We studied typically developing (TD) children, (5-15 years) and children with Grammatical-specific language impairment (G-SLI) (8-15 years). The results revealed preferences for conceptual/perceptual over syntactic cues in younger TD children, but syntactic overrode conflicting perceptual cues under certain circumstances in older children. In contrast, the G-SLI children demonstrated rigid over-application of a pluralisation rule which masked even basic knowledge of conceptual/perceptual information. The TD children performed in this way when no syntactic or conceptual/perceptual information was provided. When responses were non-verbal, however, G-SLI children showed limited abilities to use basic syntactic/semantic information for word-learning. Thus, G-SLI deficit in the grammatical system impacts on word-learning.

These studies illustrate how a combination of detailed knowledge about core impairments in different components of language and non-verbal cognition, understanding how these factors interact with other components of language in learning, and finding avenues of strength are crucial to facilitate remediation in word-learning as well as other language components.
Helping children with SLI to remember new words – the role of frequency and spacing
Nick Riches (Guy’s Hospital, London)

Recent research has suggested that word-learning in children with SLI is characterised by “frequency-dependence” (i.e. they need more presentations in order to acquire new words: Rice et al. 1994, Gray 2003), and poor retention over time (Rice et al. 1994). This talk investigates two important factors which may facilitate lexical learning within this population: “frequency” - the number of presentations within a given time period, and “spacing” - the period of time which elapses between presentations. It will be argued that frequency and spacing are extremely important aspects of the word-learning environment, or indeed any learning environment. The talk will assess some data from a recent study investigating the impact of frequency and spacing on word-learning in children with SLI (Riches et al. 2005) and will explore some theories relating to frequency and spacing effects. On a more practical level, it will offer some suggestions as to how these two factors may be manipulated to provide an optimal training regime.

Marysia Nash (Royal Hospital for Sick Children, Edinburgh, UK)

Children with a language impairment which includes a receptive vocabulary deficit have poorer word-learning than children of the same age and level of non-verbal ability. Furthermore, word learning deficits occur whether words are individually presented and defined or embedded in a story with no specific attention drawn to their phonological form or meaning. Assessments of children’s representations of new words following exposure suggests that they have stored less phonological and semantic information than their peers and that their ability to learn the phonological form may even be poorer than younger children matched for vocabulary age (Nash and Donaldson, 2005).

When coupled with the ongoing and long term demands for efficient vocabulary acquisition, this profile of difficulties presents a considerable challenge for remediation. Yet intervention for clinical populations with vocabulary deficits continues to be under researched, with most studies focussing on therapy for word finding deficits.

Against this background, this presentation will consider two approaches from education literature which might address some of the identified deficits. In particular the content and effect of robust vocabulary instruction described by Beck, McKeown and Kucan (2002) and of an approach to the development of independent word learning skills described by Lubliner and Smetana (2005) will be described.

Learning about word learning in children with and without SLI
Natalie Munro (University of Sydney, Australia)

The present study uses tasks based on a fast mapping paradigm to examine the lexical learning abilities of sixteen children with specific language impairment (SLI) aged 4-6 years and their matched controls. The fast mapping task presented 12 phonotactically possible non-words to the children. Each word was mapped to an already established referent, akin to a “learn a new language” task. The initial fast mapping session was followed-up with weekly training on the mapped words for six weeks. The children’s receptive and expressive knowledge of the mapped words was tested after the initial fast mapping session, twice during the training, and then at the conclusion of training. The children’s knowledge of these newly acquired lexical items was further investigated using a word association task.

The talk presents the results of the two groups on the fast mapping and lexical learning task and considers these in the light of the results for the word association task. The results show that the SLI group have consistently poorer performance on the fast mapping and lexical learning task than the control group. On the word association task the SLI group were significantly poorer in terms of both semantic and phonological associations.

Children with SLI start as “late talkers” and do not seem to exhibit a vocabulary spurt. Studies showed that deficits in phonological short term memory contribute to their slow development of vocabulary. In addition, deficits in lexical meaning have been documented. Nevertheless, the mechanisms of word learning have rarely been investigated in children with SLI. With respect to normal language children, it has been shown that these children assume that nouns refer to categories; i.e. when hearing a novel noun normal language children focus their attention on objects of the same kind or taxonomic category, but not on objects that are related spatially or thematically. This noun – category bias or taxonomic constraint facilitates word learning on the one hand and guides children to construct new categories on the other.

The paper reports on two studies that investigated the noun - category bias in children with SLI. Using a match-to-sample task the first study shows that preschool children with SLI differ from control groups (matched either for productive vocabulary or age) in the way they extend novel nouns. The children saw target pictures that were either labelled by a pseudoword (see this fep?) or not labelled. Then they had to look for “another one” or “another fep” among a thematically related, a taxonomically related, and an irrelevant choice. The target pictures and the taxonomic choices either belonged to the same basic or to the same global level category.

Based on deficits seen in children with SLI in the first study, the second study investigated whether novel words helped children with SLI to inductively learn new object categories. The children were presented with fantasy-creatures that could be grouped into hierarchically organized categories. Perceptual features as well as the actions the creatures performed and the regions where the actions were performed served as cues for categorization. Children with SLI and a control group matched for productive vocabulary were presented with various exemplars of these categories within a play context. The exemplars were either named by a common novel noun (that is, they were given a category label) or not. In the test phase of the experiment an explicit and an implicit categorization task were given. While naming facilitated categorization in normal language children, no facilitative effect was observed in the children with SLI. The results will be discussed with respect to mechanisms of word learning and the interrelation between language and cognition in children with SLI.

ABSTRACTS OF POSTERS
FEATURING

STUDIES OF WORD-LEARNING

AND

RESEARCH AT THE CENTRE FOR DEVELOPMENTAL LANGUAGE DISORDERS AND COGNITIVE NEUROSCIENCE
Evaluating a cueing intervention for children with word-finding difficulties
Wendy Best (University College London)

Word-finding difficulties occur commonly in children attending language support services. Interventions focusing on semantics and on phonology can improve word-finding abilities. There is, however, limited research on the use of letters or letter to sound cues in therapy. A child may be able to correctly choose the initial letter and be helped by a phonological cue (e.g. it starts with “buh”), but be unable to generate the sound from the letter themselves (at the same time as trying to find the word). This poster presents the results of a study using a computerised-aid, which provides the missing link by converting letters to sounds. The aid was originally devised by Dr Carolyn Bruce and has been used successfully with several adults with anomia (Best et al., 1997).

Five children were included in this study (Best, 2005); they varied considerably in their language development and non-verbal abilities. Two sets of items were included in therapy, a research set (with control items matched for baseline naming) and a further set of functional relevance for the individual child. All the children showed significant improvement in naming intervention items after therapy. This effect maintained. The views of children, parents and professionals are considered.

Fast mapping difficulties in children with SLI may not be due to fast mapping
Cristina McKean and Thomas Klee (University of Newcastle upon Tyne)

Children with specific language impairment (SLI) acquire their first words later than expected and often have vocabulary difficulties throughout development, with fast mapping being implicated as one possible source of this problem. This study explored children’s fast mapping abilities by controlling variables which have not previously been considered, including phonotactic probability, neighbourhood density, synonym interference, and memory load. The possible influences of visual memory and pragmatic inference were also considered.

The fast mapping abilities of 8 children with SLI with receptive language difficulties were compared to 8 typically-developing children matched for age and 8 children matched for vocabulary level.

Results indicated that the SLI group was able to fast map to the same extent as the controls when the stimuli were controlled. We hypothesize that children’s word learning difficulties may not be due to fast mapping per se but may be more a function of linguistic and psycholinguistic demands.
Explicit Vocabulary Teaching in Secondary Schools: A Collaborative Approach

1Mackie L, 2Wilson G, 1Carroll L, 1Nash M, 3Arbuckle D, 4Sloan D

Pupils with vocabulary deficits have word learning difficulties (Nash and Donaldson, 2005). Deficits in receptive vocabulary tend to increase with age, (Stothard, 1998) and be associated with poor reading comprehension (Nagy, 2005). Speech and language therapists working with secondary school pupils who have vocabulary deficits are constrained in their approach to intervention by the expected rate of acquisition and the difficulty of finding time within the students’ timetable for traditional speech and language therapy. This poster presents an approach to collaborative vocabulary teaching based on Beck, McKeown and Kucan (2002). It briefly presents the theoretical background to the approach and the practical steps required for implementation. It will describe how we took the approach into the mainstream classroom, giving real life examples of the vocabulary learning activities presented collaboratively with English teachers. It will explain how these fitted in with the teachers’ objectives and the curriculum. Specific activities and approaches that were most successful, some views from teachers and pupils and a discussion of the next steps will also be presented.


---

1 NHS Lothian, University Hospital Division
2 NHS Fife
3 City of Edinburgh Council, Children and Families Department
4 Fife Council, Education Department
Many Speech and Language Therapists work within the education system and models of good practice abound. However, very little evidence exists which shows whether these models are effective. This poster presents the integrated model used with adolescents with specific language impairment in a specialist school and also presents evidence of the effectiveness of this provision.

I show that on tests of receptive and expressive language, the children’s standard scores increase significantly. This indicates that intervention for adolescents with SLI can be effective to the extent that they are able to begin closing the gap between their language scores and those of their typically developing peers. I conclude that the overall provision offered to these pupils is effective. This challenges the widespread policy of ceasing speech and language therapy for children after the age of 11 years. Future research needs to focus on identifying which features of the overall provision contribute to the significant changes in scores in order that intervention can be maximally efficient as well as effective.

Mary Jennings (Moor House School, Oxted)
Chris Donlan and Alison Constable (University College London)

Manual signing is a well recognised teaching and therapy tool in the field of specific language impairment. This single case study evaluates the effectiveness of Paget Gorman Signed Speech (PGSS) in the teaching of new vocabulary to a ten year old boy with Landau-Kleffner Syndrome. Signing was used on the basis that it may strengthen semantic representations and may provide more time for processing verbal information. Two sets of spoken words were presented in therapy; one accompanied by PGSS and another without. The control group consisted of a third set of words which were not presented in therapy. Final assessment showed that words accompanied by PGSS, but not spoken-only words, were better named than controls. Comprehension had significantly improved in both of the therapy conditions. Possible implications for therapy are discussed.
Clarifying the speech perception deficits in dyslexic children.
Souhila Messaoud-Galusi, Valerie Hazan and Stuart Rosen (University College London)

Several studies have observed a link between reading difficulties and the ability to identify and discriminate speech sounds, and so have hypothesised a possible causal relationship between poor speech perceptual abilities and reading difficulties. Nevertheless, reading difficulties are not systematically associated with poor speech perception. Large individual differences have been observed among the reading impaired, with a proportion of poor readers performing similarly on speech perceptual tasks to average readers.

Our study aims at clarifying the speech perceptual deficit in dyslexic children. We are currently collecting speech perceptual data on a "bee-pea" contrast, for 70 dyslexic children and 70 average reading controls aged 7 to 12. We will outline our study and preliminary data during the workshop.
Acquisition of restrictive relative clauses in English typically developing children and children affected by specific language impairment

Flavia Adani and Maria Teresa Guasti (University of Milano-Bicocca, Italy), and Heather van der Lely (University College London)

The comprehension of complex grammatical constructions, e.g. passives and embedded sentences, is known to be compromised in children with SLI (Bishop, 1982; van der Lely, 1996 among others). Moreover, sentence processing studies (Bates et al. 1984) have shown that in English, the word order SVO is a more valid cue to sentence interpretation than morphological cues (such as agreement markers).

In this study, we investigated the comprehension of another complex construction – restrictive relative clauses – by 11 English-speaking children with SLI (age 9;5-16;0) and also in three groups of children with normal language development. The control groups were matched on the basis of morpho-syntactic abilities (TROG2) and receptive vocabulary (BPVS2). The third group is composed by children (age 9;5-12;10) whose language abilities are in advance of those of the SLI group. Note that the SLI children who participated in this study are relatively old and, therefore, show a persistent language deficit (9 out of 12 have been previously diagnosed as G(rammatical)-SLI (van der Lely, 2005)).

Comprehension of subject (SR) and object-relatives (OR) was assessed using a sentence-pictures matching task. Number agreement was also manipulated by using match (“sg,sg” or “pl,pl”) and mismatch (“sg,pl” and “pl,sg”) conditions. An example of the experimental sentences is the following:

**SR (match):** The cat [that is washing the dog] has climbed onto the stool

**OR (mismatch):** The leopard [that the horses are stroking] is sitting on the floor

We show that SLI children’s performance is significantly less accurate than that of the three control groups and there is also a main effect of type of sentence, with object relatives being significantly harder than subject relatives in each group but the oldest control group. Moreover, we found a main effect of match/mismatch condition.

In conclusion, even though nominal and verbal morphological information seem to help the interpretation of complex structures for SLI children, restrictive relative clauses can be identified as a construction that needs to be worked on in therapy.


Phonological skills in children with SLI and Dyslexia: a heterogeneous picture
Chloe Marshall, Franck Ramus, Stuart Rosen, Sophie Tang and Heather van der Lely
(University College London)

We report here on the first set of results from a larger study investigating phonological skills in 8-12 year old children with SLI and dyslexia. Phonological deficits are at the core of many models of SLI and dyslexia (Bishop and Snowling, 2004; Ramus, 2003). However, the nature of the phonological deficit in these two disorders, and whether or not it is identical in both, is not well understood. We investigate the segmental level of phonology, and more specifically individual stop and fricative consonant sounds in English (e.g. p, b, s, z). We report on tasks that tap input and output processing, and lexical and non-word phonological representations at the segmental level. We show that the SLI and dyslexic populations are heterogeneous with regards to segmental phonological abilities, and 28% of children were found to have no impairment relative to control children in that domain. Moreover, there are no clear cut differences between SLI and dyslexic children. Our findings suggest that children with language and literacy impairments do not have one common underlying phonological deficit, and motivate further investigation of a much wider variety of phonological skills than has hitherto been carried out.

Optical topography investigations of the cerebral bases of language in premature and normally developing newborns
Yin-Juei Chang, Yasuyo Minagawa-Kawai, Emmanuel Dupoux, Jeremy Hebden, David Delpy, John Wyatt, Judith Meek and Heather van der Lely (University College London)

Many healthy right-handed adults have left hemisphere language lateralization. Lateralization refers to hemispheric asymmetry in activity levels of cortical areas responsible for language processing; the hemisphere with the greater contribution is said to be dominant. Left-ward lateralization for language processing in infants has been found in many studies. By using fMRI (functional Magnetic Resonance Imaging), ERP (Event Related Potential), habituation/dishabituation experiments and Optical Topography (OT) system, these studies have proposed that infants ranging from 2 days to 12 months had a greater response in their left hemisphere to the normal language or phonetic changes, rather than backward speech or non-phonetic changes. However, it remains to be shown exactly when this left-dominance occurs.

In order to examine this question, we will measure the brain activations of the frontal and temporal areas in full-term and premature newborns. Also, we will compare infants’ neural responses to the native language and non-native language. Because the premature has less exposure to the mothers’ voice by vibration through the uterus, these two aspects of comparison can elucidate the significance of familiarity in the language lateralization. The participants will be babies born in English monolingual families and the experiment will be carried out while they are sleeping. Measurement instrument used here is the OT system, which is non-invasive and has enough spatial resolution to assess laterality.
An investigation into the syntactic-semantic interface in typically developing children and children with Grammatical-SLI
Nichola Gallon and Heather van der Lely (University College London)

Children with Grammatical-Specific Language Impairment (G-SLI) have grammatical deficits affecting syntax, morphology and phonology (van der Lely, 2005). However, we do not know whether their deficit also extends to semantics. Indeed, we know little about semantic knowledge in children with SLI.

This research aims to elucidate the nature of semantic knowledge in children with SLI by examining how particular verbs can change their meaning based on their “aspect”. “Aspect” refers to the duration of the activity described by a verb. A verb’s aspect distinguishes whether the event being referred to is at the beginning, middle or end, whether it is a single event or a repeated event, and whether it is a completed or incompletely event. Aspect is influenced by lexical and grammatical properties. Lexical via the inherent property of the verb and whether it has a temporal boundary or end point, grammatical via the particular “viewpoint” that is adopted toward the event being described by the verb; i.e., completed or still ongoing.

We have investigated the effects of lexical and grammatical aspect on performance in children with G-SLI in comparison to groups of younger children matched on language ability. In addition, we have explored how the impact of grammatical structures such as passive sentences (e.g. The boy was pushed by the girl) and unaccusative sentences (e.g. The chair broke) effect comprehension of aspect. The results show that the children with G-SLI have difficulty with identifying temporal boundaries or endpoints and the imperfective aspect (i.e. the past progressive: The man was crossing the road). We will discuss the findings and their implications.