SEVENTH INTERNATIONAL CONGRESS FOR THE STUDY OF CHILD LANGUAGE

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ABSTRACTS

This congress which is the triannual activity of the
**International Association for the Study of
Child Language**
is hosted by
Boğaziçi University, Istanbul.

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ACKNOWLEDGEMENTS

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PAPER SESSIONS

MONDAY   SESSION A: NARRATIVES
9:00 - 9:30   Room A

CONVERSATIONAL NARRATIVES OF CHILDREN: OCCASIONS AND STRUCTURES

Susan Ervin-Tripp   Aylin Küntay
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An important attribute of human talk is reporting of events in the past, real or imagined. These reports often contain temporal juncture, quoted dialogue, and evaluations and thus qualify as narratives. Most studies of narratives have been of elicited or storybook settings, in which it is possible to see children's progress towards the cultural norms for the genre. We have examined what occasions conversational rather than elicited narratives, and also the kind of dialogic interaction which affects prolongation of the narrative in Turkish preschool and American preschool and grade school data.

There are large differences in the frequency of conversational narratives with adult and child partners at preschool ages because of adult dialogic scaffolding. The structure of child narratives is not the same when conversationally occasioned, with shifts in the temporal sequencing and in the amount of evaluation, compared to elicited narratives. Due to interactional factors such as joint participation or the activity setting, in children's conversational contributions we found many proto-narratives, lacking critical elements of culturally normative narratives such as temporal juncture, conflict, or resolution, yet under some conversational conditions, occasioned stories are also performances approaching the cultural ideal. By looking at the cline between fledgling and well-developed narratives we learn about the cultural, cognitive, and developmental factors that affect what form a narrative takes.

MONDAY   Session A: NARRATIVE
9:30 - 10:00   Room A

ACTION AND CONSCIOUSNESS - DUALITY OF CHILD'S NARRATIVE CONSTRUCTION

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Bruner's term *subjunctive reality* denotes a possible, not a certain, reality which is not entirely determined by the speaker, but is partially created by the listener. The discourse processes that are used to subjunctivize reality are fundamental to the language of narrative, to the creation of a dual landscape: one of the world of action depicted in the story, the other of the world of consciousness in the minds both of story characters and narrator. Children acquire a competence in these processes as they enter the dual landscape of the fictional world (Astington, 1990).

The paper is concerned with stages of consciousness which young narrators ascribe to their story characters - agents of actions changing referential reality (heroes of the narrative line) and observes of these actions (participants in the narrative filed). In light of previous studies, the child story-teller attributes to narrative field participants attempts to interpret what is happening in the narrative line (Bokus, in press). Does the narrator differentiate between interpretations, according to participant's status, i.e., whether the participants are related to the heroes symmetrically (peer relations) or asymmetrically (non-peer relations).

Ninety-six preschoolers were studied, 32 in three age groups (4;3-4;9, 5;3-5;9 and 6;3-6;9). The children recounted to peer listeners the adventures of the heroes in two picture books. Each picture book was in two versions, the difference being the relationship between participants and heroes. Each narrator recounted two adventures, one which happened in the presence of peers and the other in the presence of non-pears. The research design was balanced for age, gender and order of narration in these two experimental variants.

A comparative analysis was made of mental states attributed by children to symmetrical and asymmetrical participants in the narrative

filed: what participants know, think, or feel, or do not know, think, or feel (after Bruner, 1986).

Analyses to date show that narrators aged 4 to 7 seem to attribute a different optic to symmetrical and asymmetrical participants in reference to the actions in the narrative line. They impute different interpretations, e.g., "why" interpretations, accentuating causal links, or "what for" interpretations, accentuating teleological links. These differences in interpretation (in the landscape of consciousness) affect the course of the narrative line.

MONDAY   Session B: SYNTAX
9:00 - 9:30   Room B

HOW ABSTRACT IS YOUNG CHILDREN'S LINGUISTIC KNOWLEDGE, AND HOW CAN WE TELL? DEVELOPING A DATA-DRIVEN APPROACH TO THE STUDY OF EARLY SYNTACTIC DEVELOPMENT

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There has been a growing trend in recent years towards the attribution of abstract linguistic knowledge to young language-learning children. A number of arguments are typically used to support such attributions. Firstly, there is the 'continuity assumption' of learnability theory according to which it is argued that a model of language acquisition which uses the same theoretical vocabulary to describe adult and child speech is more parsimonious than one which does not; secondly, there is the inability of approaches based on the gradual extension of cognitive-semantic categories to account for the full range of utterances produced by young language-learning children; and, thirdly, there is the very low frequency of syntactic errors typically found in young children's speech, which is at least consistent with a syntactic knowledge plus performance limitations account of children's early productivity.

These factors when taken together are often viewed as providing positive evidence for syntactic categories in children's early speech. However, this kind of conclusion is problematic because it ignores the possibility that

children's apparently sophisticated performance could be explained in much more limited scope terms. Thus, the use of syntactic definitions in empirical work on children's early multi-word speech effectively disguises lexical specificity in children's early productivity by counting different lexical items as instances of the same category and hence assuming the very thing which it is trying to prove. Similarly, the use of low global error rates to argue for syntactic word class and relational categories in young children's speech may disguise differential patterns of error across different aspects of the same system which could make descriptions in terms of abstract underlying knowledge rather difficult to sustain.

The present study represents an attempt to explore these issues on multi-word speech data from a sample of 12 children between the ages of 1;6 and 2;6. The results show that children's apparently sophisticated use of word class knowledge can often be explained in terms of a relatively small amount of limited scope knowledge; and that low global error rates for pronoun case marking often hide very poor performance on particular aspects of the case-marking system. It will be argued that these findings suggest the need to abandon the 'continuity assumption' of learnability theory in favour of a more data-driven approach to early syntactic development, since it is only be adopting such an approach that we can collect the kind of data necessary to allow us to distinguish between models which assume knowledge at different levels of abstraction in the young language-learning child.

MONDAY   Session B: SYNTAX
9:30 - 10:00   Room B

BINDING AND THE NP/DP CONTRAST

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Hestvik (1991), following Abney (1987) argues extensively that an important contrast between English and Norwegian can be captured by application of the NP/DP contrast, (and Avrutin (1993) argues the same for Russian). The following sentence requires disjoint reference in Norwegian, but allows binding in English:

1) John lost his wallet =>
     lost [NP [poss his [wallet]=someone else's (Norwegian)
     lost [DP[NP [poss his [wallet]= his own (English)
     lost a wallet = his own wallet (Norwegian)

The extra DP boundary provides a further barrier, so that principle B is not violated in English, but it is violated in Norwegian which has only an NP, so disjoint reference arises for John/his. Further arguments by Enc (1991), Hale and Keyser (1993) Runner (1993), Lin (1993), Borer (1993) lead to the possibility that a language may have both NP and DP depending upon the semantics of the nominal. Light verbs (laugh a laugh take time, lose hold) receive an NP analysis and entail automatic coreference (you lose your own hold).

22 children 4-5-yrs of age were given 24 sentences balanced between one-clause (2) who painted his pants and two-clause (3) who thought someone threw a ball at him. Pictures choice was elicited (e.g. for (2) a picture of two children painting their own pants and one child painting someone else's pants appeared). Children gave 63/528 bound responses (who=his/him), or 10% (both answers are grammatical). Of theses 52 were for (3), the two-clause sentence, and only 11 for (2), the one clause sentence, i.e. they were five times more likely to give bound answers for the two clause case. A second experiment, with 39 children obtained 136/1440 bound answers, again with 17 for one-clause sentences, and 119 for two clause sentences. Only with a third experiment, we found among 9yr olds 31/84 (37%) gave bound answers to (2).

Since who is a quantifer, this evidence supports the application of Principle B in (2), if we also assume that the child uses NP for his wallet and not DP, i.e. as if it is Norwegian and not English. In contrast, in a two-clause environment where Principle B does not apply, a bound reading is expected and found. This supports evidence for knowledge of Principle B with quantifiers (Wexler and Chien (1991).

These results conform to the results obtained in long-distance extraction experiments by deVilliers and Roeper (1994) who found, first, that children and adults allowed extraction in (4) how did John make the decision to shave him (=> by hand), while only children allowed it for (5) how did he like the decision to shave him (children: (shave) by hand; adults: (like) very much), suggesting again that in (4) and (5) there is an NP which is also not a bounding node for children, while only in (4) is the NP (make a decision) not a DP, hence not bounding, for adults. In addition, predictably, when extraction was blocked in (5) by DP, coreference (John=him) was allowed for both children and adults. [See

also Van Hout and Hollebrandse (1994) and Penner and Shoenenberger (1994) for claims that some objects are initially projected as non-DP's]

Once again we find a subtle interaction between the projection of functional nodes by children and the application of universal principles. And the language variation allowed by Universal Grammar is reflected in the acquisition process.

MONDAY   Session C: SOCIOLINGUISTICS
9:00 - 9:30   Room C

CROSS-LINGUISTIC EVIDENCE FOR THE EARLY ACQUISITION OF DISCOURSE MARKERS AS REGISTER VARIABLES

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Discourse markers (hereafter DMs) serve a variety of functions (Schiffrin 1987, 31.) Most prior research has focused on the textual uses of DMs: how they 1) create coherence and structure by coordinating speech acts, turns, and propositional content, 2) provide feedback about comprehension, and 3) signal production problems. A less studied function of these forms is their use as markers of the social relationships between interlocutors in any speech event (i.e., as markers of *register*); when used this way, these forms are usually in sentence-initial position, carry no semantic content, and are not grammatically required.

The study presented in this paper extends the few earlier works that have examined the acquisition of DMs as register variables in American English (Andersen, 1990), Lyonnaise French (Andersen, in press), and Chicano Spanish (Andersen et al., in press). A comparison of the finding of these studies with more recent data from comparable role-play speech of middle-class, monolingual Spanish-speaking Argentinean children demonstrates striking cross-linguistic parallels in the way children learn to use these forms both to convey social meaning and to manipulate the social situation where power relationship are not pre-established. For example, all groups used more DMs (especially lexical ones like *well, alors, ahora*) in the higher status roles; when lower status individuals

used DMs to "superiors", they were more likely non-lexical variants such as *uh, euh,* or *eh.*

Moreover, in all four communities, the children used "stacks" of DMs (Well, now, then...", "Et bon alors..." "Y bueno vamos...") to mark greatest power asymmetries (e.g. teacher-to-student). The less frequent lexical DMs in the low status roles were usually directed to a peer, were of a different set than the ones used by high status individuals, and appeared to be used when attempting to gain control over the situation rather than, for example, when requesting to use something the other possessed.

In addition to these parallel patterns of use, the data also reveal differences that reflect the relative importance of these forms in the different language communities. Thus, while the children in all four communities move from sparing use at age 4 to a fair degree of sophistication by age 7, the French children used significantly more DMs and 'stacking' than their American and Spanish-speaking peers, reflecting the greater frequency of these forms in spoken French generally.

MONDAY   Session C: SOCIOLINGUISTICS
9:30 - 10:00   Room C

HOW ADULTS THINK KIDS SHOULD TALK: A SOCIOLINGUISTIC STUDY OF CHILD LANGUAGE

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Adults readily evaluate even the youngest members of their community. These evaluations in turn determine how adults will interact with particular children, and also whether they will undertake action to remedy any perceived problems. For a large part, adults' evaluations of children are based on how children talk.

Attitudes towards early child language have so far received little or no attention from the scientific community. Yet knowledge about such attitudes is indispensable for investigating the relationship between

child language development and socialization practices in a particular community.

This paper investigates what speech characteristics of Dutch-speaking four-year-olds lead to positive vs. negative evaluations by adults residing in Antwerp, Belgium.

A group of 329 adults between the ages of 20 and 40 and living in the greater Antwerp area were asked to rate natural, narrated speech stimuli of four Dutch-speaking preschoolers using a formal attitude instrument, which was devised through an ethnographic method. Subjective reaction tests involving a second group of respondents were then used to determine the links between particular ratings and characteristics of the speech stimuli. The stimuli were also transcribed and analysed in terms of various formal features.

Preliminary results show that at the age of four, adults expect children to speak clearly. A varied intonation pattern is also highly appreciated. Children who speak very quietly are rated rather negatively. Further analyses will have to show to what extent the use of complex sentences, the range of lexical variety, the occurrence of morphosyntactic and pragmatic errors and other formal elements determine raters' evaluations.

It is abundantly clear at this point, however, that adults form quite outspoken opinions of very young children based only on how they talk. This finding shows up the great social importance of speech even in the earliest years.

MONDAY   Session: PLENARY
10:00 - 10:50   Room B

SETTING THE NARRATIVE SCENE: HOW CHILDREN BEGIN TO TELL A STORY.

Ruth Berman
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MONDAY   Session A: NARRATIVE
11:15 - 11:45   Room A

CHILDREN'S AND ADULTS' NARRATIVE STYLES IN NEGEV BEDOUIN ARABIC

Roni Henkin-Roitfarb
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In comparing natural oral narratives of adults and 8-13 year olds in Negev Arabic, distinct stylistic differences emerged at all text levels -- stage setting, narrative proper, direct speech, and asides.

Stage setting
Adult narratives started out like actual plays from an atemporal concrete setting(i); children fixed their tales firmly in the distant, unreal, literary past(ii):

(i)	hada fi		wahad six		
	this there (is)		a sheikh		'There was a sheikh'
(ii)	fi	kan marra	juha....		
	there	was once	Juha		'Once there was Juha'

Narrative proper
a) The adults' basic plotline proceeded with subjectless or VS past tense; the narrative present, narrative imperative, and presentatives served for highlighting. Adults also switched perspective and contrasted by word order alternations and overt subject marking. Children alternated past only with presentatives and the narrative present, which tended to 'take over' at a certain stage, rather than texturize the narrative throughout. Children's verbs predominantly followed a syndetic overt subject: u-hu yaf'al ' ' and he does....'.
b) Adults' used various boundary marking adverbials and phrases; the basically asyndetic style alternated with syndesis for packaging several events into one unit; hypotactic patterns were used as strategies for lingering around peaks. Children's narrative was predominantly paratactic and syndetic, with lexical connectives rare, except u-minnah/ ba'den '(and) then'. The older ones used textual repetition in connective functions.

c) Adults varied information packaging and flow by compounding,
alternating the length and syndesis pattern of verbal sequences, cutting
up speech sequences to extremely short units, ellipsis, repetitions, etc.
Of these, children had only ellipsis and repetitions, often unintended.

Direct speech
In speech, adults considerably increased 'spoken' and emotive features;
children did not 'artistically colloquialize' their speech; apart from
literarisms, particularly abundant in their speech sections, children used
a monolytic narrative-speech mode.

Asides
Adults used a multitude of explanatory as well as expressive-
commentative and communicative asides. Children only used asides for
explaining or as fillers.

In general, adult narrative style, as distinct from the conversational
colloquial, is basically paratactic, asyndetic, subjectless, with
alternations in these parameters serving in discourse functions; the
children's style, nearer the conversational colloquial, tends to be
extremely paratactic, syndetic, linear-analytic (overt subject-V), with less
variation between narrative and speech segments. Children, especially
under age 11, showed a less developed stylistic scale.

MONDAY   Session A: NARRATIVE
11:15 - 11:45   Room A

FRENCH CHILDREN'S ORAL NARRATIVES: INTRODUCTION, MAINTENANCE AND RE-INTRODUCTION OF REFERENTS

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This paper will focus on how French children introduce, maintain and
reintroduce story characters during the construction of a narrative text.
Two questions guide the research to be presented: 1) Are children able to
introduce both major and minor characters into their narratives and if so
how?; and 2) What kind of linguistic devices are used to maintain and
switch referents.

Our data consist of narratives elicited using the Frog Story (Berman & Slobin, 1994) There are four groups of children: 3/4-, 5-, 7-, 10/11-year-olds as well as a group of adults. Each group consists of at least 12 subjects.

While all age groups introduce the three major characters, our results show considerable development of the ability to incorporate minor characters. What emerges is a hierarchy of saliency of minor characters as a function of their roles in the story. The perceived prominence of the introduced character seems also to affect the choice of linguistic form. More than 90% of the youngest children's first mention of the main protagonists are done by definite reference (definite noun phrases and pronouns) as opposed to only 50% definite noun phrases for the minor characters. The older subjects use indefinite noun phrases (60%) to introduce both main and minor characters. Finally, a somewhat similar distribution of presentative forms (ya un garçon qui) (there is a boy who) used to introduce major and minor characters is found.

In answer to our second question concerning maintaining and switching references, the results show clear developmental trends: the range of linguistic forms, such as relative clauses and other noun modifying structures used to maintain reference increases with age. Our results concerning switching referents show that older subjects use noun phrases (le garçon) and/or noun phrase + subject clitic (le garçon i) while the younger show use of thematic strategy (Karmiloff-Smith, 1981), especially when encoding main protagonists.

MONDAY   Session A: NARRATIVE
12:15 - 12:45   Room A

PROBLEMS, STRATEGIES AND INTENTIONS IN THE DEVELOPMENT OF YOUNG CHILDREN'S NARRATIVE GENRES

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This paper examines the development of narrative coherence in spontaneous stories composed by preschool children in a voluntary storytelling and story-acting practice that forms an integral part of

everyday classroom activities. This practice generates narratives that are significantly richer, more complex, and more sophisticated than the material used for most narrative research on young children. The analysis includes the entire set of 495 stories composed during an academic year by the children in a nursery class (18 3- and 4-year-olds).

Previous research on young children's narrative coherence has focussed either on the presence of minimum structural criteria for a "well-formed" story or on the use of syntactical devices to attain linguistic "cohesion." This body of research is predominantly based on experimentally induced narratives (e.g., using picture books), a context that greatly facilitates and simplifies the child's task, but at the same time channels and constrains the child's narrative options. For this reason, existing criteria do not capture a central problem of constructing narratives that emerges clearly in young children's spontaneous storytelling: establishing coherence involves not only connecting a series of actions and events (in effect, the predominant criteria of "well-formedness"), but also choosing and maintaining a set of characters who are continuous and interconnected. This dimension is especially crucial to the ways that children define and maintain the boundaries of a story.

Most stories in this sample are multi-episode. Coherence in the use of characters is measured primarily by the degree of continuity and linkage of characters (a) between consecutive episodes and (b) over the story as a whole.

Taking this dimension into account, the analysis demonstrates that the characteristic strategies for achieving coherence (and their developmental trajectories) differ for the boys and girls; that these different strategies respond to different problems generated by their characteristic storytelling modes; and that these are linked, in turn, to differing narrative intentions embedded in distinctive gender-related narrative styles. Boys introduce larger numbers of characters, which at first tend to be loosely linked and discontinuous, with weak specification of spatial and temporal setting; over time, boys focus on establishing firmer connections between characters, and on more effective use of spatial and temporal markers. From an early point, on the other hand, girls' stories are organized around stable sets of characters embedded in networks of ties (e.g., family relationships) and placed in specified physical settings; girls focus on developing their capacity for constructing multi-episode stories, with a wider range of characters and actions and more extensive shifts in time and space, without losing the coherence and centeredness of their story framework.

This analysis has general implications for reconsidering the criteria of "well-formedness" in young children's narratives. It also suggests that grasping these patterns of narrative development requires an approach that integrates structural and interpretive analysis.

MONDAY   Session B: TENSE / ASPECT
11:15 -11:45   Room B

THE ACQUISITION OF PAST TENSE MORPHOLOGY IN ICELANDIC AND NORWEGIAN CHILDREN: AN EXPERIMENTAL STUDY

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Kim Plunkett
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A well accepted model of children's acquisition of past tense morphology assumes a dual mechanism: a prewired default rule application process on the one hand, and the memorization of irregular forms on the other. Recent research has investigated the validity of models picturing a single input driven acquisition mechanism, where factors such as the phonological properties of the verbs, the number of verbs undergoing similar changes from stem to past tense (type frequency) and the token frequency of each verb, all play important roles.

This paper reports a cross-linguistic study of children's acquisition of past tense forms where the effects of the above mentioned factors derived from connectionist and competition models were tested. In addition, the validity of results based mainly on English was tested on languages with more complex morphologies.

Parallel experiments were designed for Icelandic and Norwegian, involving three groups of 30 children aged 4, 6, and 8. Past tense forms of 60 verbs (30 weak and 30 strong) were elicited from each child, using a method similar to that of Bybee and Slobin (1982).

The analysis performed so far support most of our hypotheses. There are significant age effects on the acquisition of all verb-classes, and clear age differences between error scores as well as error types in the three age groups. The higher the type frequency of a verb class, the earlier its acquisition, and the likelier it is to form a basis for overgeneralization vis-a-vis verbs in other classes. Thus, generalization of the default weak pattern is the overall most common error type, followed by "regularization" into a second, less-productive weak pattern implemented in Icelandic and Norwegian. Although much less frequent than regularization errors, generalizations based on relatively high type frequency strong inflectional patterns also occur. We expect high token frequency to "protect" verbs from such generalization. Similarly, the stronger the family resemblances within verb-classes (phonological coherence), the less likely we expect them to become subject to "leakages" from other patterns. Preliminary analyses seem to bear out these predictions.

The overall pattern of acquisition and error types is similar in Icelandic and Norwegian. The hypothesized effect of the greater complexity of the Icelandic inflectional paradigm is confirmed for the youngest children but changes with age. The Norwegian children do significantly better than their Icelandic age-mates at age 4 on all but the productive weak class. At age 6, the Icelandic children have caught up and even surpassed the Norwegian children on certain verb types.

MONDAY   Session B: TENSE / ASPECT
11:45 - 12:15   Room B

ACQUISITION OF VERB SYSTEM IN CHILD RUSSIAN (EARLY STAGE)

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The purpose of this research is to investigate how the system of Russian verb forms are acquired by children. It deals with an evolution of the verbal morphological system (including first semantic oppositions) over long stretching period from the early stage to the formation of the set of conventional grammatical relations. This problem seems to be crucial

because (1) no system is equal to a mechanical sum of its parts, and (2) a child does acquire it "part by part" (or "step by step"). The material is based on the observation of data from two children: the boy Fil (between 1,4,4 and 2,0) and the girl Varja (between 1,6 and 1,10), in special comparison with Gvozdev's diary. The data-collection from Fil was started in conformity with the international project "Pre- and protomorphology" headed by Prof. W. Dressler.

Two periods may be distinguished in the Fil's material:
(i) 1,4,4-1,7,11 when only "precursors" of the imperative and the infinitive occur ("pseudo-infinitive" and "pseudo- imperative");
(ii) 1,7,12-2,0,1 when the imperative/infinitive/tense opposition is formed.

In the first period both the infinitive and the imperative can be used in the same "stimulation situation" and are not opposed semantically. Meanwhile, a "non-stimulation situation" is usually marked by nursery words and sound-imitations related to a moment of speaking.

The beginning of the second period is characterized by the expanded sphere of functioning of the infinitive. The infinitive can mark situations of indirect stimulating in syntactic constructions like "XOCHU + CHITAT'" '(I) want to read'. It can serve also as a marker for the semantics-of the present tense. The infinitive is separated from the imperative semantically because the latter is restricted by the stimulation situations. The imperative/infinitive opposition seems to be a verb protosystem in Russian. Such infinitive is semantically wider than the conventional one.

Almost simultaneously the first present forms occur, but the production of them is complicated because the acquisition of the category of person is not yet accomplished, i.e. the form of the 3rd person in present can also serve as a marker of the 2nd and even the 1st person.

Both past and future forms acquired at this stage are perfective, so during some short period the aspect-tense subsystem has quite an easy and effective structure: the imperfective corresponds to the present, and the perfective correlates with the past and the future. The common principle is that the child passes gradually from one overgeneralized form (that we call "mediator-form") to another through semantic narrowing of already acquired forms until all the verb paradigm is acquired.

MONDAY   Session B: TENSE / ASPECT
12:15 - 12:45   Room B

THE ROLE OF LEXICAL AKTIONSART IN THE ACQUISITION OF RUSSIAN ASPECT

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In research on the acquisition of aspect a major role is attributed to the inherent temporal properties of a verb, i.e., to what is often called Aktionsarten . In Russian, Aktionsart distinctions are indicated mostly by prefixes. The majority of these fulfills two functions at a time: apart from modifying the Aktionsart, they indicate aspect. From this, one might expect Aktionsart to play a crucial role in establishing the aspectual value of forms, as in the historical development of Russian aspect. The questions arises whether Aktionsart is also relevant for the child in acquiring aspect. In other words, do children start out to learn aspectual differentiations by lexical means, to wit, by knowing Aktionsarten or do they start out with primitive aspect concepts? To address these questions, I look at Aktionsart correlations that go together with the imperfective vs. perfective distinction in the adult language. If Aktionsart correlations prove to be highly relevant in early child language, chances are that they play a central role in the acquisition of aspect. Alternatively, if such correlations are not salient for the child, other factors may prove to be decisive. For instance, children could try to link innate concepts of aspect with specific morphological characteristics.

Both hypotheses are investigated in a single comprehension experiment. I grouped verbs according to both Aktionsart and morphology criteria, so that the children can use either criterion in making aspectual distinctions when asked to do so. The experiment consists in showing video tapes in split-screen technique where two versions of actions are presented so as to correspond to the adult language distinction between perfective and imperfective aspect. Then the child is presented with perfective utterances taken from the verb groups and is asked to correlate them with either of the two visual versions. This allows exploring verb hierarchies in the acquisition of aspect. The research is currently under work in St. Petersburg with one hundred children from 2 to 6 years of age. A pilot study showed that the task was feasible even

for the youngest children and that the results are significant. Preliminary results show that acquisition hierarchies follow Aktionsart correlations rather than morphological criteria. This makes it unlikely that children rely on primitive notions of grammatical aspect. On the other hand, the findings neatly fit the observation that Russian aspect morphology is extremely heterogeneous, i.e., not a very robust and systematic guide to semantics.

MONDAY   Session C: SOCIOLINGUISTICS
11:15 - 11:45   Room C

SEPARATE WORLDS FOR GIRLS AND BOYS?: LANGUAGE STYLES IN MIXED-SEX FRIENDSHIP GROUPS IN THE U.S. AND CHINA

Amy Kyratzis   Jiansheng Guo
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The controversial "Separate Worlds Hypothesis" in gender research claims that girls and boys spend much of their time in the preschool and elementary school years in same-sex friendship groups, boys playing mainly with other boys and girls playing mainly with girls (Maccoby, 1990). As a result, girls and boys evolve very different "cultures", involving different interaction styles and goals for interactive exchanges (Tannen, 1990). Girls' interactive style focuses on the goal of intimacy-maintenance. Boys' interactive style focuses on the goals of one-upsmanship and hierarchy-establishment (Sheldon, 1990; Tannen, 1990).

One ramification of "separate worlds" is for miscommunications to occur in mixed-sex interaction. The two cultures "clash", with the same behaviors meaning different things in the two "cultures" (Tannen, 1990). For girls in particular, dissatisfaction in mixed-sex exchanges may ensue (see Maccoby, 1990, for a review). Girls speak in ways open to participation of the partner (e.g., indirectness; waiting for a turn to speak) which do not fare well in the context of boys' one-upsmanship goal and boys can take over in mixed-sex interactions.

Are such gender differences universal across contexts and cultures? Barrie Thorne (1993) has found contextual variation in the reality of separate worlds -- though many girls and boys in many contexts segregate by gender and display distinctive styles, not all girls and boys in all contexts do so. In addition, in keeping with a constructivist view of gender, the issue of cultural differences is important to address.

The present study examines such cross-cultural variation. Patterns of domination between girls and boys in classroom friendship groups are compared among children from two cultures --English-speaking children from a public school in Worcester, U.S.A. and Mandarin-speaking children from a public school in Beijing, China. Children were preschoolers. Spontaneous classroom interactions among selected mixed-sex friendship groups were video and audio-recorded. These interactions were analyzed for control move features: challenging moves; "open" forms (e.g., indirect requests; questions); and other features.

The results were that challenging moves differed in overall meaning between the two cultures. In the Mandarin interactions, they were playful, the speakers intending to develop collaborative activities. In contrast, in the U.S., they were serious, speakers intending to pursue their own agendas and dominate peers. In terms of gender, in the U.S. interactions, boys made most of the challenging moves and girls used questions and deferred to boys' opinions. In the Beijing interactions, girls made most of the challenging moves (albeit of the playful nature discussed above). Hence, domination of girls by boys was the pattern for the U.S. mixed-sex friendship groups but for the Mandarin friendship groups, girls assumed pseudo-dominant roles with both sexes pursuing a collaborative agenda. Possible cultural beliefs and practices underlying these language differences are discussed.

Maccoby, E.E. (1990). Gender and relationships: developmental account. American Psychologist, 45: 513-520.

Sheldon, A. (1990). Pickle fights: Gendered talk in preschool disputes. Discourse Processes, 13.

Tannen, D. (1990). You just don't understand: Women and men in conversation. NY: Ballentine Books.

Thorne, B. (1993). Gender Play: Girls and boys in school. Rutgers, New Jersey: Rutgers University Press.

MONDAY   Session C: SOCIOLINGUISTICS
11:45 - 12:15   Room C

BILINGUAL TWO-YEAR-OLDS AND CODE SWITCHING

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The language mixing of children acquiring two languages simultaneously has been used as evidence for either the one-system hypothesis of language development or the two-system hypothesis (e.g. Vihman 1985, Lanza 1992). These data, however, have also been interpreted in light of data on adult code-switching to determine whether or not there are qualitative differences between the two populations' language use (see Vihman 1985, Lanza 1992, Meisel 1994). A comprehensive model for code-switching developed from adult intra-sentential code-switching, and which is also built on research concerning general language processing, can provide insights into the young bilingual child's processing of two languages. The Matrix Language Frame (MLF) Model (Myers-Scotton 1993) makes clear predictions concerning the general morphosyntactic structure in intra-sentential code-switching. This model assumes a distinction between content and functional, or system, morphemes in language; the matrix language plays a more dominant role in structuring the constituents of an utterance than does the embedded language. As the name implies, this model does not assume the linear switching of two languages. The model is currently being tested with other types of language contact situations such as adult second language acquisition and pidgins and creoles.

The main data under examination come from the language mixing of two children acquiring Norwegian and English simultaneously in Norway. Other language pairs reported on in the literature will also be examined. These data will be examined to determine the fit with the MLF model, and what any discrepancies can indicate. Previous claims concerning the relationship between early language mixing and adult code-switching will also be discussed. Any theory of code-switching must take into account the language mixing of very young bilinguals. Moreover, there is a need to examine child language mixing in relation to other types of bilingual language production, in order to shed light on how two languages are processed simultaneously.

MONDAY   Session C: SOCIOLINGUISTICS
12:15 - 12:45   Room C

THE ACQUISITION OF POLITE LANGUAGE BY JAPANESE CHILDREN

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Japanese is a language particularly rich in grammaticalized features in the social/relational domain. The system of polite language in Japanese applies not only to pronouns (as in Indo-European languages), but also to verbs, adjectives, nouns and conventional expressions, as well as to paralinguistic features such as intonation and conversational strategies such as indirectness. Any study of polite language in Japanese would reveal enormous differences in usage according to various factors, such as gender, age, context (e.g., topic of conversation, setting) and degree of familiarity. Verbal politeness in Japanese involves two dimensions, namely: (1) formality, which reflects the psychological and/or social distance between participants, and (2) honorific and humble language, which indicates respect and deference.

In order to comprehend and produce polite language, children must first learn the linguistic forms of politeness, and second, they must understand the pragmatic rules that govern each socio-interactional context. In order to become competent language users, children must acquire many registers and learn when and how to use them. The data is based on naturalistic observations of 18 Japanese children (ages 3-5) over the course of 1-2 years. In particular, role-play contexts (e.g., store-clerk-customer, doctor-patient, teacher-student) illustrate that even young children are able to use a wide range of polite language in pragmatically appropriate ways, although they may not often use such forms in spontaneous speech. Questionnaires targeting issues pertaining to language socialization and children's use of language in different contexts were also administered to the parents.

Even 3-year-old Japanese children clearly have a fundamental understanding of the appropriateness of polite forms used to indicate particular roles and situations. They are able to use a variety of greetings/polite expressions, as well as referent, addressee (*teineigo*) and beautification honorifics. The data show that even young children are

sensitive to contextual factors such as familiarity and the status of the addressee. They receive much prompting and guidance from their parents and teachers. They also show a high level of metalinguistic awareness regarding the appropriate use of polite language (as seen in their self-corrections and metalinguistic comments). With increasing age, aided by better grammatical skills and more sophisticated cognitive abilities, as well as a wider range of social experiences, they gradually expand their repertoire of polite language. Research on children's acquisition of Japanese, a language with an extremely elaborate politeness system, can help better our understanding of children's pragmatic development and sociolinguistic awareness.

MONDAY   Session A: LEXICON
16:45 - 17:15   Room A

WHEN SHALL A WORD BE LEARNED? DETERMINANTS OF AGE OF ACQUISITION OF LEXICAL ITEMS

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Determination of psychological and linguistic factors which influence age of acquisition can provide illuminating indirect evidence on the processes of lexical acquisition. Empirical research on this question has been difficult, primarily because of a lack of appropriate data. Both structured vocabulary tests and naturalistic observations have serious limitations.

The present report takes advantage of a uniquely large-sample data set: the norming data (N= 1803) for the MacArthur Communicative Development Inventories (Fenson et al., 1994). These inventories provide developmental information for 681 words for children between 8 and 30 months.

Because of the changing composition of the lexicon even during this early phase, and because the factors being evaluated may play different roles within different form-classes, it is more appropriate to correlate predictors with acquisition age within specific categories. For example, differences in word frequency may be more important for nouns, which

form a very large set, than for closed-class items, which are fewer and nearly all high-frequency themselves.

For each word, the age at which 50% of children were reported by their parent to be producing the word was used as the dependent variable, the age of acquisition. Multiple regression was used to evaluate the influence of phonology (length of word, phonetic difficulty, stress pattern), semantics (concreteness, meaningfulness), and input (word frequency). Analyses were conducted for the full list, and also within the major grammatical categories of common nouns, predicates, people, and closed-class words.

Some selected findings:
1. For the full list, the three significant predictors of age of acquisition are concreteness, rated familiarity, and length of word. However, the pattern was quite different for specific vocabulary subcategories.
2. For common nouns, frequency is the most significant predictor, followed by length of word and concreteness. Given the nonrelational nature of most nouns, sheer frequency can play a larger role here than in other categories.
3. For predicates, concreteness is the most significant predictor. The referent of verbs is harder to "pick out" from context, and thus concreteness helps.
4. For names for people, only length of word is a significant predictor. This is probably a consequence of the high correlation of length with semantic complexity in English kinship terms, e.g., son vs. grandfather.
5. For closed-class words, only concreteness is a significant predictor.
6. Although there are a number of frequent two syllable words with stress on second syllable, they are learned later than two syllable words with stress on first syllable, a finding which is consistent with other research showing a trochaic bias of infants and young children exposed to English.

MONDAY   Session A: LEXICON
17:15 - 17:45   Room A

DEVELOPMENT OF LEXICAL ORGANIZATION: COORDINATES AND SUPERORDINATES IN CONTRAST AND CATEGORY ASSOCIATION

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W.A. Van Loon-Vervoorn

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Coordinate and superordinate relations are virtually absent in children's explicit lexical organization. However, recent research suggests that these relations are developing at an *implicit* level in young children. This development has been revealed by presenting children aged 4-7 with one of two Guided Word Association tasks, assumed to reflect implicit lexical organization, preceded by a Free Word Association task tapping explicit organization. The Guided Tasks were Contrast Association ("A DOG is *not* a..?") and Category Association ("A DOG is a *kind* of ..?"). It was shown that coordinate responses, absent in children's Free Association responses, but common in adults' Free Associations, did appear as common responses in children's Guided Word Association. These findings were taken as support for a hypothesis derived from the "Principle of Contrastive Usage" (terms that are used contrastively are also similar in meaning). According to this hypothesis, the development of coordinate relations in the mental lexicon is a gradual process guided by the Principle of Contrastive Usage.

In the present research, an additional prediction based on this hypothesis was tested. Coordinate relations, reflecting similarity as well as difference, are assumed to be basic to the development of superordinate relations. The previous research showed that children often use a coordinate Y instead of a superordinate when responding to "An X is a *kind* of...?" Later on in development, the similarity implicated in the coordinate relation should be expressed in an appropriate superordinate term. This leads to the prediction that the production of coordinate responses in Contrast Association is related to the production of superordinate responses in Category Association.

The prediction was tested by presenting 112 Dutch children aged 3-8 with both Contrast and Category Association, separated by a distractor task. Nouns were used as stimuli. For 56 subjects, Contrast Association preceded Category Association; for the other 56 the task order was reversed. For each child, the production of coordinates and superordinates in each task was determined. Preliminary analyses show that the prediction is partly confirmed. In both task orders, the production of *coordinates* in Contrast and Category Association appeared to be related. However, only when Category Association preceded Contrast Association, the production of *coordinates* in Contrast Association was related to the production of *superordinates* in Category Association as well. Implications of these (partly conflicting) findings for the development of lexical organization will be discussed.

MONDAY   Session A: LEXICON
17:45 - 18:15   Room A

THE INFLUENCE OF CAREGIVER SPEECH ON CHILDREN'S USE OF NOUNS VERSUS VERBS: A COMPARISON OF ENGLISH, ITALIAN, AND MANDARIN

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Evidence from Mandarin (Tardif, in press) and Korean (Choi & Gopnik, in press) contradict the cross-linguistic universality of a "noun bias" (cf. Gentner, 1982) and point to input as a factor which may influence the extent of a bias in children's early vocabularies. We considered the role of input in more detail by investigating various aspects of adult-to-child speech in comparable naturalistic samples of English (6 caregiver-child dyads, children's mean age 2;0), Italian (6 dyads, children's M age 1;11) and Mandarin (10 dyads, children's M age 1;10). Like Mandarin, Italian is a pro-drop language; thus, adult-to-child speech in Mandarin and Italian should have high verb frequencies and a high probability of verbs occurring in salient utterance-initial and utterance final-positions. However, like English, Italian verbs are inflected. Italian-speaking children also show a predominance of nouns and not verbs in their early vocabularies. The question, therefore, is: Which input factors account for these cross-linguistic differences in children's use of nouns and verbs? We

examined several factors, including type and token frequencies for nouns and verbs in both adult and child speech, the utterance positions in which nouns and verbs occurred in the adult speech, and the redundancy of forms through the type-token ratios of inflected and uninflected stems in adult speech.

Although adults produced more main verb tokens than common noun tokens in all three languages, verbs appeared much more frequently at the beginnings and ends of utterances in Italian and Mandarin, but not in English. In all 3 languages, verbs had lower type-token ratios than did nouns (i.e., verbs were more "redundant"). When these ratios were examined for inflected forms, there were no significant differences between nouns and verbs for either English or Italian, although Italian verbs received more inflections than did English verbs. For Mandarin, verbs were still significantly more "redundant" than nouns; neither Mandarin verbs nor Mandarin nouns received grammatical inflections that altered the stems themselves. As expected, the English and Italian-speaking children produced more noun than verb types and tokens, but the Italian-speaking children were not as unequivocally noun-biased as the English-speaking children. The Mandarin-speaking children produced more verbs than nouns.

None of these 3 factors -- type and token frequencies, the probability of occurring in salient utterance positions, or the relative redundancy alone explains the proportions of nouns or verbs in the vocabularies of the children learning these different languages. Taken together, however, they do explain why Mandarin-speaking children produce more verbs than nouns in their early vocabularies, whereas English- and Italian-speaking children do the reverse. Currently, we are also examining the pragmatic focus of the adults' utterances in these languages to assess whether pragmatics can account for some of these cross-linguistic differences between nouns and verbs.

References

Choi, S. & Gopnik, A. (in press). Early acquisition of verbs in Korean: A cross-linguistic study. Journal of Child Language.

Gentner, D. (1982). Why nouns are learned before verbs: Linguistic relativity versus natural partitioning. In S.A. Kuczaj (Ed.), Language development (Volume 2): Language, Thought and Culture. Hillsdale, NJ: LEA, pp. 301-334.

Tardif, T. (in press). Nouns are not always learned before verbs: Evidence from Mandarin speakers' early vocabularies. Developmental Psychology.

MONDAY   Session A: LEXICON
18:15 - 18:45   Room A

EARLY SENSITIVITY TO SOUND SYMBOLISM IN ENGLISH-SPEAKING CHILDREN

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Development of sensitivity to sound symbolism for size and shape was examined between 3 and 5 years of age. Sound symbolism is a broad term denoting non-arbitrary, non-conventional associations between linguistic sound and meaning. Sixteen English-speaking children at each age (3, 4, and 5), both male and female, served as subjects. Thirty-two novel objects were constructed and paired together such that 8 contrasted on the dimension of size (one large, one small) and 8 contrasted on the dimension of shape (one round, one angular). Every attempt was made to hold other attributes (e.g. material, color, complexity, weight) constant. Each object pair was matched with a pair of nonsense labels that was designed to contrast along either the dimension of size or shape according to the findings of previous research on sound symbolism. A pilot study with a group of 44 undergraduates showed that English-speaking adults paired the theoretically matching labels and objects at rates significantly above chance.

All child subjects were tested individually. The left/right position of the objects, the order of presentation of the labels, and which label was requested were counterbalanced across subjects. Order effects were controlled by using a Latin square design. One experimenter presented the objects to the subject while a second experimenter (blind to the position of the objects) presented the labels (e.g., "One of these is *muba* and one of these is *deetee*. Point to the one that is *deetee*"). Subjects' responses were scored as consistent or inconsistent with the predicted label-object matches derived from the literature on sound symbolism.

The mean number of matches made by the children of each age group for the size trials and the shape trials was compared to chance in separate Student's t-tests against a hypothetical mean. Results indicated that the four- and five-year-olds were sensitive to sound symbolism for both size and shape, while three year-olds were sensitive to sound symbolism indicating shape only. These results suggest that sound symbolism may

play a role in early lexical acquisition. In addition, for both size and shape pairs, the mean number of matches was greater for the four-year-olds than the threes, greater for the fives than the fours, and greater for the adults than the five-year-olds, suggesting that sensitivity to both types of sound symbolism increases with age.

MONDAY   Session B: LANGUAGE DISORDERS
16:45 - 17:15   Room B

MORPHOLOGY AND SYNTAX IN THE LANGUAGE OF
RETARDED CHILDREN WITH DIAGNOSED NEUROLOGICAL
ABNORMALITIES – EVIDENCE FROM CHILDREN LEARNING
HEBREW

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This paper reports on the development of Hebrew morphology and syntax in children with Sotos syndrome, Fragile X and Hydrocephaly. These are congenital, neurological pathologies which typically result in retardation and are known to affect language performance. Children were studied from the beginning of two-word combinations. Language tests, devised to examine productive knowledge of Hebrew morphology and certain aspects of syntax, were administered three times year. Natural conversations with the children were recorded and served to assess their general linguistic level. IQ was tested once a year with specific emphasis on non-verbal achievements. Data collection stopped when the children attained good scores on the language tests.

In previous work, including work that was presented at the IASCL in Trieste, it was argued that, contrary to certain theoretical expectations, particularly those associated with some brands of functionalism, formal, linguistic systems develop early cross-linguistically in normal children. Preliminary work with pathological populations of children, suggested that this might be the case in brain damage as well. The findings from the current work support this general contention. Much like normal children, and similar to children with congenital, anatomical brain injuries, the subjects of the current study attained productive knowledge

of formal, linguistic systems earlier and with seemingly less effort than they experienced in relation to other aspects of language.

The paper will discuss the implications of these findings to theories of normal and pathological development. It will be argued that the structural characteristics of these systems, namely, the fact that they are *context-independent*, accounts for the facility with which they are acquired. The data from pathology which, at this point covers a number of diverse congenital syndromes, strongly support the claim that this might be a general learning parameter that sets orders of priority in language development and possibly across domains as well.

MONDAY   Session B: LANGUAGE DISORDERS
17:15 - 17:45   Room B

NARRATIVE COMPETENCY OUTCOMES OF SPECIFIC EXPRESSIVE LANGUAGE IMPAIRMENT (SLI-E) AT AGES EIGHT AND NINE

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Narrative skills of 40 children identified as manifesting Specific Expressive Language Impairment (SLI-E) as toddlers will be compared to those of children with normal language histories at ages eight and nine. SLI-E is characterized by a delay in expressive vocabulary in the presence of age-appropriate nonverbal cognitive ability and normal receptive language. In light of findings that narrative competency becomes an increasingly significant indicator of language impairment over the course of the school-age years, the two groups were compared using a picture-elicited narrative production task at age eight and with a variety of picture-elicited, script, and expository narrative tasks at age nine.

At age eight, subjects were asked to relate the contents of an extensively-studied picture book (Frog, Where Are You? by Mercer Mayer). Four components of narrative competency were assessed: length; linguistic complexity (use of connective markers and type-token

ratio); narrative coherence (inclusion of plot-advancing events); and narrative maturity (inclusion of story grammar components).

Analyses of narratives elicited at age eight revealed that SLI-E subjects included fewer utterances, earned significantly lower narrative maturity ratings, and included fewer plot-advancing events than did comparison peers. However, narratives from the two groups were comparable in terms of type-token ratio and MLU at age eight.

At age nine, subjects performed five narrative tasks: (1) a re-telling of the Frog, Where are You? story, (2) a scaffolded condition of Frog, Where are You? , which included a series of probes intended to elicit descriptions of characters' internal states, character speech, and causal links among events, (3) a recounting of a doctor's office script, (4) an expository description of the workings of a non-present device (e.g., an explanation of "how a bicycle works"), and (5) an expository description of a brief experiment conducted within the interview session. Narratives elicited from children in the SLI-E group will be compared to those of comparison peers in terms of length, lexical sophistication, syntactic complexity, narrative cohesion, and narrative coherence.

MONDAY   Session B: LANGUAGE DISORDERS
17:45 - 18:15   Room B

IN-DEPTH PROFILES OF SEMANTIC-PRAGMATIC LANGUAGE DISORDER AND THEIR IMPLICATIONS FOR THE INVESTIGATION OF UNDERLYING FACTORS

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BACKGROUND
"Semantic-pragmatic disorder" is a diagnosis which is increasingly widely used among speech and language therapists and other related professionals, despite being little understood. Generally, the diagnosis is given to children whose clinical picture is dominated by conversational disability. Contrary to the more traditional picture of language impairment, phonological and syntactic development are said to be

relatively intact. A more precise definition has yet to be agreed. Several attempts have been made to describe and characterise semantic-pragmatic disorder (Bishop & Adams, 1989a; Bishop & Adams, 1989b; Blank. Gessner, & Eposito, 1979; Conti-Ramsden & Gunn, 1986; Jenes, Smedley, & Jennings, 1986; McTear, 1985; Sahlen & Nettelbladt, 1993). However, a clear picture has yet to emerge. Repeated findings of heterogeneity conspire to confuse the issue (Adams, 1991).

Existing studies have concentrated on conversational features alone and have involved little or no exploration of linguistic, social, or semantic functioning. Although these are clearly overshadowed by conversational disability, I would argue that they have the potential to elucidate some of the conversational features with which these children present and should not be neglected.

The psychological causes of semantic-pragmatic disorder also form the focus of lively debate. Some authors maintain that the difficulties which it entails are linguistic in nature (Crystal, 1985). Others suggest that they are a manifestation of a socio-cognitive deficit similar to that which may he implicated in autism (Aarons & Gittens, 1990; Brook & Bowler, 1992). This debate has significant implications for diagnosis prognosis, and educational and therapeutic management.

THE STUDY

Data from the profiling of the linguistic, communicative, and cognitive functioning of six 9-to-10-year old children who have been diagnosed as having semantic-pragmatic disorder will be presented. In an attempt to overcome the limitations of existing studies, single-case methodology has been applied. Formal assessment of phonology, morphology, syntax, semantics, comprehension, and social functioning has been undertaken. Informal measures have been designed to assess specific aspects of functioning which appear to pose particular difficulty to these children (such as the understanding of "wh"-questions) but which are not tapped by existing measures. In addition, the results of conversational analysis which has been undertaken on samples of conversation will be presented.

Contrary to suggestions in the literature, marked anomalies of language content and form have emerged. Similarities and differences between the six profiles will be discussed. The implications of the findings for linguistic and socio-cognitive explanations of semantic-pragmatic disorder will be explored.

Aarons, M & Gittens, T (1991) What is the True Essence of Autism?
Speech Therapy in Practice, 5, 8, 2-3.

Adams, C. (1991). Analysis of Language-Impaired Children's
Conversations. In K. Mogford-Bevan & J. Sadler (Eds.), Child
Language Disability Volume II. Semantic and Pragmatic
Difficulties Clevedon: Multilingual Maaters Ltd.

Bishop, D.V.M., & Adams, C. (1989a). Conversational characteristics of
children with semantic-pragmatic disorder, I; Exchange
structure, turn-taking, repairs, and cohesion. British Journal of
Disorders of Communication, 24, 211-239.

Bishop, D.V.M., & Adams, C. (1989a). Conversational characteristics of
children with semantic-pragmatic disorder, II; What features
lead to a judgment of inappropriacy? British Journal of
Disorders of Communication, 24, 241-263

Blank, M., Gessner, M., & Eposito, A. (1979). Language without
communication; a case study. Journal of Child Language, 6,
329-352.

Brook, S & Bowler, D (1992) Autism by another name: Semantic and
pragmatic impairments in children. Journal of Autism and
Developmental Disorders, 22, 1, 61-81.

Conti-Ramsdem, G., & Gunn, M. (1986). The development of
conversational disability; a case study. British Journal of
Disorders of Communication, 21, 339-351.

Crystal, D. (1985). Letter to the Editor, College of Speech Therapy
Bulletin,May Issue, 10-11.

Jones, S., Smedley, M., & Jennings, M. (1986). Case study a child with a
high level language disorder characterised by syntactic, and
pragmatic difficulties. In ICAN (Ed) Papers: Advances in
Working With Language Disordered Children. London: ICAN.

McTear, M. (1985). Pragmatic disorders; a study of conversational
disability. British Journal of Disorders of Communication, 20,
129-142.

Sahlen, B., & Nettelbladt, U. (1993). Context and comprehension; a
neurolinguistic and interactional approach to the understanding
of semantic-pragmatic disorder. European Journal of Disorders
of Communication, 28, 117-140.

MONDAY   Session C: SYNTAX / LEXICON
16:45 - 17:15   Room C

EARLY LEXICAL DEVELOPMENT IN RELATION TO SYNTACTIC DEVELOPMENT

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A critical examination of previous work reveals weaknesses in the position that lexical acceleration is a presyntactic phenomenon and in the related position that lexical acceleration is driven by the acquisition of nouns. It is proposed that lexical acceleration is due to the child's recognition of the distinction between assigning labels to nonverbal entities (for which words are used) and expressing relational notions (for which word combinations are used). This hypothesis was supported by the results of a study in which four girls in their second year were observed weekly for an average of 1-2 hours for 8-10 months.

For each of the four subjects, a count was made for each week of the number of new words and of new combinations. The four subjects differed in initial levels of vocabulary and in rate of development, but they all exhibited the same relation between vocabulary growth and acquisition of syntax. For all four subjects, the vocabularies began to increase at a faster rate at the time they began to produce word combinations and they continued to accelerate with the acceleration in the production of combinations. Also, for each of the four subjects there was a proportionately larger increase of verbs during the acceleration period. These and other results support our hypothesis that attributes the lexical acceleration to the child's insight about the bipartite mapping between language and reality: individual words for assigning labels and word combinations for expressing relations.

MONDAY   Session C: SYNTAX / LEXICON
17:15 - 17:45   Room C

THE PRINCIPLE OF NO BLUR AND THE ACQUISITION OF GENDER IN ZULU

Susan Suzman
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Carstairs-McCarthy (C-M) (1994) proposes that inflection and gender systems obey a Principle of No Blur (an extension of Clark's 1987 Principle of Contrast 'Every two forms contrast in meaning') that helps children learn complex morphology by narrowing the options for inflectional behaviour of new lexemes. The No Blur Principle for gender states that target (on agreeing constituents) genders unambiguously identify the gender of its controller and is the only gender realization for its gender class. It applies to covert gender systems (where controller nouns do not have overt gender markers) but not overt or semantically-motivated gender. Zulu has a complex 'overt' noun class (NC) (gender) system (a subset given in A) and extensive agreement. Furthermore, certain genders are semantically-motivated, namely NCs 1 and 2, where the majority of nouns denote human beings. Zulu, in C-M's terms, lies outside the No Blur Principle. The language-learning child produces a somewhat different system, partly illustrated in B. Contributing factors for this simplified system include child use of (1) singular nouns only, (2) use of the initial vowel /i- / for i -commencing NCs 5, 7 and 9 (B1) and (3) production of lexical stems (B2) only in the early stages.

A. Adult Zulu

NC1	*umu-ntu*	'person'	NC2	*aba-ntu*	'people'
NC5	*i-kati*	'cat'	NC6	*ama-kati*	'cats'
NC7	*isi-cathulo*	'shoe'	NC8	*izi-cathulo*	'shoes'
NC9	*in-yoni*	'bird'	NC10	*izin-yoni*	'birds'

B. Child Zulu
(1) Early NC (gender) markers
     NC1   *u-*
     NCs 5,7,9   *i-*
(2) Omission of gender markers
     kati, cathulo, (n) yoni

What does the child do with such a system to master adult Zulu?
Naturalistic data from young children's speech are examined for evidence
of acquisition strategies. Given a semantic correlation between form and
meaning in Zulu NCl and pragmatic importance of reference to 'people',
evidence for a semantic strategy in acquisition along the lines of +/-
human correlation with u -/ i- commencing NC (B) is assessed and found
to play a role in children's initial noun classification. However, such a
strategy does not solve the problem of learning the three i-commencing
noun classes. Omission of prefixes in C-M's framework produces a covert
gender system that should obey the Principle of No Blur. Evidence from
extensive agreement indicates that it selectively does so. It is argued
that syntagmatic dependencies seen in noun phrase elaboration obey the
Principle of No Blur for gender and provide the entry point to learning
gender in Zulu.

MONDAY   Session C: SYNTAX / LEXICON
17:45 - 18:15   Room C

HOW GENERAL IS EARLY SYNTACTIC LEARNING?

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In the theory of Universal Grammar, the system of lexical categories is
thought to mature before the system of functional categories. Thus
Radford puts forward evidence suggesting that children are operating
with categories such as noun, verb and adjective well before they have
any category of determiner and before they show any signs of tense and
agreement marking. Examples of early determiner use or marking are
put down to formulaic learning on the part of the child while lack of
evidence for lexical categories is attributed to performance problems.
This raises major methodological issues of how utterances are to be
identified as formulaic and how general control of lexical categories and
of case and agreement marking are to be determined. The work to be
presented suggests some answers to these questions and then applies
these to a longitudinal study of 12 children between the ages of 12 and
36 months, audiorecorded in their homes. MLUs at the end of the study
ranged from 2.7-4.2 . A more complex picture emerges from these data
than that implied in the stage theory of development briefly outlined

above: the children in the study show evidence for some lexical categories and not others, and for some limited understanding of tense and case, which is neither fully formulaic nor fully general.

MONDAY   Session C: SYNTAX / LEXICON
18:15 - 18:45   Room C

LEXICAL FACTORS IN THAT-TRACE EFFECTS IN SPANISH- AND ENGLISH-SPEAKING MONOLINGUALS AND BILINGUALS

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This study examines whether Spanish-English bilinguals differ from monolinguals in their use of that-trace in English and whether bilinguals' performance in English differs from their performance in Spanish. That-trace effects are linked, according to UG theory, to the presence or absence of pro-drop in the language. In sentences like Who do you think has green eyes?; Quien piensas que tiene ojos verdes?, Spanish (a pro-drop language) allows that-trace, English (which has obligatory subjects) does not allow that trace. Two potential routes for development are possible: First, if children determine the presence or absence of that-trace in their language on the basis of the pro-drop parameter, monolingual and bilingual children should perform similarly in the use of that-trace in the two languages, if and when they have set this parameter in the relevant languages. Alternatively, recent research (Hernandez, Bates, & Avila, 1994) has suggested that, at least for some structures, bilinguals may show linguistic structures that are somewhere in between those of the monolingual speakers of the two languages.

Subjects were monolingual English and bilingual Spanish/English K-, 2nd, and 5th graders in Miami, Florida. With a puppet correction procedure, children were asked to judge 8 sentences in Spanish and 8 sentences in English involving that-trace, and to correct any sentences that were ungrammatical. Four of the sentences in each language were correct, 4 incorrect.

Preliminary results indicate that at Kindergarten and second grade, monolinguals and bilinguals show only marginal differences in their

performance, except that the monolinguals are somewhat better at identifying incorrect sentences. At these ages, both groups are as likely to insert that/que into those sentences in which they are absent as they are to delete that/que from those sentences in which they occur. By fifth grade, however, there appears to be a difference in the monolinguals' and the bilinguals' performances: Monolinguals' performance is on the whole consistent with the structure of English. Bilinguals, in contrast, perform in a fashion that is intermediate between the two languages. These results on that-trace cannot be attributed to incorrect setting of the pro-drop parameter by bilinguals, since further data analysis reveals a high level of competence in respecting the pro-drop setting in both languages. Results also reveal that, because of differences in syntactic structures of English and Spanish, children acquiring these languages have different options available to them at immature levels of understanding.

Hernandez, A., Bates, E., & Avila, L. (1994). On-line sentence interpretation in Spanish-English bilinguals: What does it mean to be "in between"? Applied Psycholinguistics , 15, 417-466.

TUESDAY   Session A: MORPHOLOGY
9:00 - 9:30   Room A

ASSESSING PRODUCTIVITY IN ACQUISITION DATA FROM POLYSYNTHETIC LANGUAGES

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A fundamental problem in language acquisition research with spontaneous speech data is determining when a particular construction or morpheme is productive for a particular child Most researchers agree that mere production of a given form does not necessarily mean that the child has any competence with it. For a child to use a form productively, he or she must have some understanding of the structure and use of the form and/or components which comprise it. Without productivity, the form is simply a memorized unit for the child.

This problem becomes increasingly complex in languages with complex morphology. First, many more opportunities are presented for at least partial fixed forms. Second, the ongoing process of lexicalization in the adult language often obscures what the child perceives as a target. Third, the complexity of the words makes it far more difficult for the researcher to determine which forms are fixed and which are not. Polysynthetic languages present the additional difficulty of prolific word-internal morphology; it is not clear that this follows the same pattern of early productivity often claimed for inflectional morphology in highly inflecting languages such as Italian and Turkish. This paper outlines the details of the productivity problem in polysynthetic languages. It offers examples and potential solutions using spontaneous speech data from children learning Inuktitut, the language of the Inuit of arctic Canada.

A number of potential indicators of productivity are outlined, including overgeneralization, use of innovative forms, diversity of attachment, self-correction, control of scope effects, morphophonological errors, alternation between use and lack of use of a form, and alternation between basic and derived forms of the same utterance. In general, no one type of evidence is sufficient by itself to argue for unquestionable productivity, the likelihood of productivity of the structure in question typically increases as a function of the diversity of types of evidence available.

TUESDAY   Session A: MORPHOLOGY
9:30 - 10:00   Room A

THE DEVELOPMENT OF MORPHOLOGICAL AWARENESS: EVIDENCE FROM HEBREW

Dorit Ravid   Adina Malenki
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Metalanguage, or linguistic awareness, concerns a reflexive treatment of language and linguistic constructs. The development of linguistic awareness is thought to develop in tandem with language acquisition (Clark 1978), though the ability to treat language as a formal object of inquiry depends on the age of the child, the required task and the type of linguistic construct analyzed (Lieberman et al 1974). Most studies so far have focused on phonological awareness, in many cases with relation to reading skills (e.g. Goswami & Bryant 1990, Torgesen & Morgan 1990). Studies on the development of morphological awareness are relatively few so far, though such inquiry offers rich insights into children's conscious perception of the structure/meaning units of their language (Clark 1993, Smith & Tager-Flusberg 1982, Smith-Lock & Rubin 1993).

The current study investigates the development of morphological awareness in 100 Hebrew-speaking subjects - children aged 5 to 16, as well as a group of adults. Hebrew is a language particularly suited to this study, since it has a wide array of morphological structures that children are attuned to from early on (Berman, 1981, Clark & Berman 1984, Ravid 1994). The study consists of 6 separate tasks which examine awareness of both inflectional and derivational structures; it explores children's sensitivity to both semantic and morphophonological phenomena; and it relates to all structural facets of Hebrew morphology - non-concatenative (root and pattern structures), concatenative (linear), and compounding (Berman 1987, Nir 1993, Ravid 1990).

The results of the study indicate a growing ability in children to consciously analyze and discuss morphological constructs in Hebrew. Inflectional morphemes are easier to process than derivational morphemes and children display sensitivity to them earlier on. Concatenative (linear) structures are easier to process than interdigitated (non-linear) Semitic constructions; However relating to non-meaning-carrying morphophonological alternations in linear structures is

harder than relating to meaning-carrying constructs such as the Semitic root. The acquisition of morphological awareness and the ability of children to explicitly discuss morphological phenomena seems to be governed by the interaction of maturational factors in cognition and language with the development of linguistic literacy on the one hand, as well as by the interaction of general properties of morphology with the influence of language-specific features of morphological structures, on the other.

References

Berman, R.A. 1981. Regularity vs. anomaly: the acquisition of Hebrew inflectional morphology. Journal of Child Language 8: 265-282.

Berman, R.A. 1987. Productivity in the lexicon: New-word formation in Modern Hebrew. Folia Linguistica 21: 225-254.

Clark, E. Awareness of language: some evidence from what children say and do. In A. Sinclair, R.J. Jarvella & W.J.M. Levelt (eds.) The Child's Conception of Language. Berlin: Springer-Verlag.

Clark, E. 1993. The Lexicon in Acquisition. Cambridge: Cambridge University Press.

Goswami, U. & P. Bryant. 1990. Phonological Skills and Learning to Read. East Sussex, UK: Erlbaum.

Clark, E.V. & R.A. Berman. 1984. Structure and use in the acquisition of word formation. Language. 60:542-590.

Jones, K.N. 1991. Development of morphophonemic segments in children's mental representations of words. Psycholinguistics 12:217-239.

Lieberman, I.Y., D. Shankweiler, F.W. Fischer & B. Carter. 1974. Explicit syllable and phoneme segmentation in the young child. Journal of Experimental Child Psychology. 18: 201-212.

Nir, R. 1993. Lexical Formation in Hebrew. Tel Aviv: The Open University [in Hebrew]

Ravid, D. 1990. Internal structure constraints on new-word formation devices in Modern Hebrew. Folia Linguistica 24/3-4: 289347.

Ravid, D. 1994. Language Change in Child and Adult Hebrew: A Psycholinguistic Perspective. New York: Oxform University Press.

Smith, C.L. & Tager-Flusberg, H. 1982. Metalinguistic awareness and language development. Journal of Experimental Child Psychology 34: 449-68.

Smith-Lock, K.M. & H. Rubin. 1993. Phonological and morphological analysis skills in young children. Journal of Child Language 20:434-457.

Torgesen, J.K. & S. Morgan. 1990. Phonological synthesis tasks: A developmental, functional, and componental analysis.

Swanson and B. Keogh (eds.) Learning Disabilities: Theoretical and
    Research Issues. Hillsdale, NJ: Erlbaum.

TUESDAY   Session B: SIGNS AND GESTURES
9:00 - 10:00   Room B

LEARNING HOW TO SEE SIGNS: A COMPARISON OF ATTENTIONAL BEHAVIOUR IN 18-MONTH-OLD DEAF CHILDREN WITH DEAF AND HEARING MOTHERS

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University of London   of Technology
Surrey, UK   Queensland, Australia

Eleven 18-month-old children with profound pre-lingual hearing loss were
video-recorded in a free play session with their mothers. Five of the
mothers were profoundly deaf and fluent users of BSL or Auslan. The
other six were hearing and had enrolled in a signing programme. Ten
minute segments from each session were analyzed to determine the
number of switches in attention shown by each child. Switches in
attention were sub-divided into three categories: spontaneous (where the
child spontaneously looked to the mother); responsive (where the child
responded to some maternal action such as moving an object) and
elicited (where the mother made a direct attempt to gain the child's
attention). Failed attempts to gain attention were also noted. A
comparison of deaf and hearing mothers revealed no difference in the
proportion of spontaneous or elicited switches in attention. Responsive
switches in attention were by far the most frequent category for both
groups although hearing mother-child pairs showed a greater proportion
of such switches than deaf mothers. Deaf mothers exhibited a greater
proposition of failed attempts because they were more insistent on their
children turning to look at them. These overall differences between the
two groups were overshadowed by large individual differences within the
groups. Within the sample there were both deaf and hearing mothers
who achieved successful signed communication with their children in that
their children turned to look at them long enough to see them sign.
Successful perception of signing typically followed from spontaneous or
elicited attentional switches. Responsive switches in attention most

commonly focused on objects and did not provide an opportunity for maternal signing.

TUESDAY   Session B: SIGNS AND GESTURES
9:30 - 10:00   Room B

EDUCATING ATTENTION: GESTURES DISAMBIGUATE INITIALLY MISUNDERSTOOD CAREGIVER MESSAGES TO LANGUAGE LEARNING LATINO AND EURO-AMERICAN INFANTS IN THE USA

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A series of studies conducted among Latino and Euro-American caregivers and their infants in Central Mexico and the United States has documented how the perceptual information provided by caregivers narrows the possible interpretation of situated speech and relates significantly to the emergence of the lexicon.

Caregivers select and make prominent detectable perceptual information with gestures that link what is happening to what is being said. The gestures vary along a continuum of other- to self-regulation of attention that assist the infant in detecting the relation between words and world.

To investigate the efficacy of gestures in disambiguating speech, interactions in which the infant initially misunderstood the caregiver were analyzed. Multivariate frequency analyses examined gesture, lexical level of the infant, semantic complexity of the message, and culture.

This study confirms that providing more perceptual information following communicative breakdowns resolves message ambiguity. Caregivers who mark the relation between what they say and what they do assist their infants' lexical development by achieving a practical consensus that is shared and perceived by both participants.

TUESDAY   Session C: LITERACY
9:00 - 9:30   Room C

"BUT AIN'T NO NASTY WORD:" MOTHERS' USE OF RECITATION STYLE IN PICTURE BOOK READING

Patton Tabors   Jeanne de Temple
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Research on mother-child interaction during picture book reading has focussed on the frequency of reading, the occurrence of specific types of linguistic interaction, and the association between early book reading experiences and later linguistic skills. Recently, observations of book reading interactions have been carried out with larger and more diverse samples, leading to new understandings about the variety of strategies mothers use when reading with preschoolers, and thus the diversity of understandings about book reading that children bring with them when they enter school.

The data for this presentation come from an observational study of 655 families included as part of two welfare programs for mothers with young children. The children were between 28 and 69 months old. They lived in eight different urban areas across the United States and all were native English speakers. 84% of the mothers were African-American.

As part of the observational study, the mothers and children were visited at home, interviewed, and asked to work together on a number of tasks including reading an experimenter-provided book (The Very Hungry Caterpillar). All of the book reading interactions were videotaped, transcribed and coded using the CHAT transcription system (MacWhinney, 1991).

A small group of the mothers in the observational study (3%) engaged in a highly distinctive style of book reading that we call recitation reading. In this style, the mother reads a single word or phrase from the text and expects the child to repeat what she has said verbatim, often emphasizing the text by pointing to the words as she reads them. Although the child is highly engaged verbally, this type of interaction does not include attention to the content of the story or to the meaning of the words.

This style has been observed by other researchers in other parts of the world. McNaughton, Ka'ai and Wolfgramm (1993) report the use of this technique among Tongans and Maori in New Zealand, and it has been observed among Turkish immigrants in Holland (P. Leseman, personal communication, April, 1994), and native Canadian Indians in British Columbia (Gard, 1995).

In this presentation we will describe demographic, educational, and literacy characteristics of these readers. We will also explore recitation readers' belief systems about how children learn and about the purpose of book reading. In conclusion we will explore the impact that this type of picture book exposure might have on a child's developing understanding of literacy.

Gard, B. K. (1995). Characteristics of shared book reading between Native Canadian Indian caregivers and five-year-olds across three book genres. Unpublished doctoral dissertation, Harvard Graduate School of Education, Cambridge, MA.

McNaughton, S., Ka'ai, T., & Wolfgramm, E. (1993, March). The perils of scaffolding: Models of tutoring and sociocultural diversity in how families read books to preschoolers. Paper presented at the biennial meetings of the Society for Research in Child Development, New Orleans

TUESDAY   Session C: LITERACY
9:30 - 10:00   Room C

A CROSS-LINGUISTIC COMPARISON OF PHONOLOGICAL
AWARENESS AND VISUAL WORD IDENTIFICATION IN
TURKISH AND ENGLISH

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University of Minnesota   Boğaziçi University
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Current models of literacy development are mostly based on data from English-speaking children. The universality of some of those findings need to be tested with children becoming literate in other languages with varying orthographies and/or varying symbol-sound correspondences.

In this study we compared the phonological awareness and pseudoword and word recognition of kindergarten and first-grade students. One group of students from Istanbul, Turkey were becoming literate in Turkish, whereas the second group of students from Minnesota, U.S.A. were becoming literate in English. Compared to English, Turkish has a very systematic correspondence between symbols and the sounds. Another difference between the two languages is that syllable is a very salient unit in Turkish, with open syllables being more common. For example, when pronouncing inflected words, the morphemes can be broken to accommodate the syllabic structure. In the case of the word "gel" (meaning "come"), the present tense first person is created by adding the present tense inflection "iyor" and person morpheme "um", hence "geliyorum". However a reader can decode this word by breaking it into syllables, "ge-li-yo-rum ", hence breaking the morphemes. However, the syllables are created by breaking sounds at the ends of words. I n English, in contrast, breaking of the onset of a word (c" in "cat") is easier.

We have compared the performance of English- and Turkish-speakers on letter recognition, phonological awareness (identical materials) and word recognition. Phonological awareness tests included syllable and phoneme manipulation with nonwords. Also in phoneme deletion tasks, students deleted the first and the last phonemes of CVC's. (v-en or ve-n). Based on these tasks, we will discuss the differences in literacy development as a function of language characteristics.

TUESDAY   Session: PLENARY
10:00 - 10:50   Room B

ACQUIRING LITERACY

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TUESDAY   Session A: PHONOLOGY
11:15 - 11:45   Room A

PHONETIC EVIDENCE FOR PHONOLOGICAL CONSTRAINTS? THE CASE OF THE BIMORAIC CONSTRAINT IN DUTCH

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Syllabification patterns can be approached from two angles. From a phonological point of view, the phonological facts based on distributional considerations regarding word and syllable structure can be examined. In this respect, both universal constraints and language specific tendencies play a role in determining syllable boundaries. Alternatively, speakers' surface syllabifications can be examined in order to gain an insight into their intuitions.

In this paper, intuitive syllabifications of 5- and 8-year old children are studied in an experimental setting. The children syllabified Dutch disyllabic words with a single intervocalic consonant that were presented orally to them. The aim was to find out if these syllabifications adhered to the universal principles of syllable structure and if the children's syllabifications witnessed an overruling of the universal phonological constraints by language specific ones, as predicted by phonological theory. Results indicate that universal principles are sufficient to explain syllabifications. Except for obligatory onset formation, other principles act as soft constraints that are influenced by factors such as stress and vowel and consonant quality. A language specific constraint, viz. bimoraic minimality, is hypothesized to be a result of children's familiarization with the spelling conventions.

The children's intuitive syllabifications showed a surprising result: it is generally assumed that sonority plays an important role in syllabification (Clements 1990) but place of articulation is deemed irrelevant in this respect. Nevertheless children's syllabifications showed an interesting correlation with the place of articulation of the intervocalic consonant. There was a significant tendency for children to syllabify an intervocalic consonant ambisyllabically (thus adhering to the bimoraic minimality constraint) with back consonants (velars). Alveolars were less attracted to the ambisyllabic pattern, and labials even less so.

In order to explain this finding, a phonetic experiment was carried out, that aimed at establishing possible phonetic cues for this correlation between place of articulation and amount of ambisyllabic splitting. Adult speakers read bisyllabic words with intervocalic oral and nasal stops. The length of these consonants was measured and the results point out that velar consonants are significantly longer than alveolars, and alveolars are significantly longer than labials. This means that the tendency in children's intuitive syllabification to apply the ambisyllabic pattern more with velars than with alveolars and labials, can be seen as a reflex of the inherent durational properties of those consonants in the acoustic signal.

TUESDAY   Session A: PHONOLOGY
11:45 - 12:15   Room A

THE EMERGENCE AND EVOLUTION OF THE LENGTH CONTRAST IN HUNGARIAN

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In the paper, I attempt to outline, on the basis of durational measurements and psychoacoustic tests, the emergence and evolution of the length contrast in the Hungarian child.

To begin with the conclusion, I can state that the short/long opposition is the last acquired phonological contrast both in vowels and consonants.

The path the child takes to learn the adult-like use of this contrast is as follows:
-In the one-word utterance stage phonemically short and long segments are not distinguished yet, durational values are close to those characterizing long segments in adult language. That is, the feature of length is not controlled yet.
- The contrast begins to appear around the age of two, and the child uses the length pattern quite randomly. Moreover, instead of distinct short and long qualities s/he uses a half-long pattern. Accordingly, duration tends to be in between the adult values for short and long segments.

- The length feature continues on stabilizing in the course of the third year but even after that age phonemically long segments are often realized with shorter duration than their phonemically short counterpart.

Thus, throughout the acquisition process a great variation (short instead of long and vica versa) is present in actual realizations. However, this variation is only partly due to the fact of the acquisition itself. Its more important source is to be found in the variation occurring in adult language. Here the variation is triggered by several factors, namely (1) there are strong distributional constraints both for vowels and consonants, (2) the functional load of the length contrast is extremely small for high vowels and for consonants, (3) the majority of nouns show up length alternation in their inflectional paradigm, e.g. *viz* [vi:z] 'water' NOM./*vizet* [viz t] 'water' ACC., *vizzel* [vi:z: l] 'water' INSTR. Alternation is effective also in derivation, e.g. *funkciÓ* [fu ktsio:] 'function', but *funkcional* [fu ktsiona:l] 'to function', *relativ* [r l ti:v] 'relative' but *relativitas* [r l tivita:] 'relativity'. All these factors delay significantly the emergence and the standard use of the length contrast in children and imply complex learning strategies on their part.

TUESDAY   Session A: PHONOLOGY
12:15 - 12:45   Room A

WHAT UNSUCCESSFUL IMITATIONS CAN TELL ABOUT PHONOLOGICAL UNITS SUCCESSFULLY PRODUCED WITHIN SPONTANEOUS SPEECH: LEVELS OF PROCESSING IN L1 ACQUISITION

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A considerable amount of studies has focused the importance and the role of imitation within language development (Bloom, Hood and Lightbow, 1974; R. Clark. 1977; E. Clark, 1978; C. Snow, 1981; Stine & Bohannom, 1983; Pereira, 1994). Nevertheless, the topic has not obtained a consistent basis of shared knowledge and opinions. In fact, we may observe a variety of levels from where imitation can be considered, namely whether it is really relevant for first language

acquisition and how imitation data may constitute unquestionable indices of what has been definitely acquired.

Furthermore, the complexity of the imitation process is itself contributing to the difficulty in obtaining distinctive indicators of its functions and roles. For instance, at what interactive levels does it operate and what are the specialized forms of its realization? In other words, what is to be imitated, how, when, under what situations, where, with whom and why it is performed? Concerning types of memory, attentional levels, perceptive linguistic patterns, does it mean the same to be able to perform immediate imitation and to reproduce the adult model in its absence or temporal distance? Can we say that an imitative goal is achieved only when the child's linguistic realization textually and successfully reproduces the adult production model? Can achievement be also concerned with principles and tasks that are not necessarily linguistic and belong, for instance, to the social principles regulating social relations of instructional practices of each particular adult/child pair? Can imitation be judged for its strategic representation of what, in a future situation, is to be verified and evaluated by the child as a process of metalinguistic awareness?

Our study focus imitative cross-sectional data from Portuguese children aged 0-10 to 3,7. Eight children were monthly taped, for about one hour, at home, during one year. It is possible to show that phonological units still under development may recruit different performance behaviors under specific interactional and linguistic contexts. I.e., for the same phonological unit, we observe different stages of language acquisition and communicative development.

Four different behaviors are to be considered: 1. The phonological unit is not yet produced both in spontaneous and imitative speech; 2. The phonological unit is produced within imitation, although being absent from the child's spontaneous speech; 3. The phonological unit occurs within spontaneous speech, but is produced unsuccessfully within imitative contexts; 4. The phonological unit is successfully produced both spontaneously and imitatively.

From distribution of type 1, we focus the irrelevant effect of imitative elicitation by the adult. From type 3, we discriminate between linguistic and social learning implicit to the meanings of each interactive imitative situation of the adult/child pair.

Special attention is paid to imitative speech containing reformulations in order to discriminate their roles in relation to goal achievement.

CROSSCULTURAL DIFFERENCES: EARLY INTERACTION STYLES AND NARRATIVE DEVELOPMENT

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The need to examine interaction styles between caregiver and child has been emphasized by studies of acquisition in crosscultural contexts. The crosslinguistic and crosscultural data reported to date has shown that social knowledge is transmitted through linguistic forms and functions, which differ across languages and cultures. Clancy (1989), for example, has shown the correlation between the functions of wh- questions in Korean adult speech addressed to children and the children's adoption of these forms and functions. In studies of narrative development (e.g. Minami and McCabe, in press), it has been shown that conversation styles between caregiver and child reflect cultural specific differences, which are reflected in the narratives produced by the children. The current paper reports on differences in caregiver-child interactions in three language groups: Australian English, Vietnamese and Greek. Longitudinal data taken from videotaped sessions of adult-child interactions over a period of two years, with children aged from 1;6 was coded for structures used by adults and children. While there were found to be differences within language groups in the functions of questions, as well as the proportion of questions and directions addressed to the children, and the responses made to the children's utterances, clear differences across language groups were identified. The implications for language acquisition research are discussed.

References
Clancy, P. (1989) A case study in language socialization: Korean Wh-questions. Discourse Processes 12:169-191
Minami, M. & McCabe, A. (in press). Rice Balls and Bear Hunts: Japanese and North American Family Narrative Patterns.

TUESDAY   Session B: DISCOURSE
11:45 - 12:15   Room B

THE ACQUISITION OF LINKING SENTENCES IN TWO
DIFFERENT GENRES

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The intelligibility of a narrative as well as a conversation is, among other things, dependent on the relationship between the sentences used. In general, two aspects have been distinguished which both play part in the linking of sentences in discourse, namely cohesion and coherence. Cohesion is realized using linguistic means, whereas coherence depends on the cooperation between participants in discourse and thus is implicitly present in the discourse.

Previous research on the use of cohesive devices in narratives has shown an increase in the total amount up to adulthood. On the other hand, from a pilot study (Roelofs, 1995), it appears that in conversation the use of cohesive devices such as ellipsis and conjunctions start to decrease from the age of five and that of pronominal reference from the age of seven years. On the basis of this study it appears that the links in the conversational text are increasingly given implicitly, that is creating coherence.

The aim of this paper is twofold: First, to explore developmental changes in the use of cohesive devices, and to compare their use in two different genres of language-use, namely in a conversational setting and in a narrative setting. Second, to establish that coherence generally increases in the two genres with age. The following questions will be addressed: 1. How do cohesion and coherence develop in Dutch children in narratives as well as in conversations? 2. Is the development using explicit and implicit links dependent on the specific genre of language-use? 3. And if so, what influence does the specific genre have on the use of explicit versus implicit links?

In a cross-sectional design, seventy-five Dutch-speaking children have been videotaped in a spontaneous discourse situation as well as in a narrative situation. The conversation is a dialogue with an adult and the narrative has been elicited using the picture book 'Frog, where are you?'

(Mayer, 1969). The children are equally divided over the sexes and over the age groups of four, five, six, seven and eight years.

For the analysis of cohesion both in the narratives and in the conversations (part of) the typology designed by Halliday & Hasan (1976) has been used. For the analysis of coherence, two different methods have been chosen for the two different genres. In the narrative, the overall plotstructure has been analysed according to the model of Trabasso and Rodkin (1994), whereas the analysis of the coherence in conversation has been done on the basis of utterances identified as 'incoherent' or 'coherent'.

The results will indicate the relationships in development of cohesion and coherence. If this development varies across genre, this will imply that although the pragmatic knowledge is present, it is not necessarily implemented in all genres equally.

References
Halliday M. & R. Hasan 1976, *Cohesion in English*. London: Longman Group.
Roelofs, M 1995, Conjunctieve cohesie in conversatie met kinderen. *Net-bulletin* 1995.
Trabasso, T. & P. Rodkin (1994), Knowledge of Goal/Plan: A Conceptual Basis for Narrating Frog, where are you? In: R.A. Berman & D.I. Slobin (eds), *Relating Events in Narrative. A Crosslinguistic Developmental Study*, Hillsdale/New Yersey: Lawrence Erlbaum Ass.

TUESDAY   Session B: DISCOURSE
12:15 - 12:45   Room B

ARGUMENTATION IN PRESCHOOLERS' NARRATIVE DISCOURSE

Jolanta Rytel
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Argumentation is an activity between two or more individuals who try to deal with recognized differences of opinion or perspectives of action, concerning some specific problem or course of action. Arguments are

elements in an argumentation the purpose of which is to convince someone of something. In a context of argumentative language use, arguments are integrated parts of specific form of communication and interaction which has specific communicative and interactional goals. Thus argumentation occurring in different types of discourse can be studied.

The present study explores argumentation occurring in preschoolers' narrative texts constructed in the process of peer co-narration (two co-narrators with listener). A total of 144 children between 4 and 7 years took part in the investigation (48 at three age levels: 4 years and 3 months to 4 years and 9 months, 5 years and 3 months to 5 years and 9 months, and 6 years and 3 months to 6 years and 9 months). Of these, 96 children (32 at each age level) recounted to peer listeners the film adventure which had been seen only by them. The film entitled "Pear story" used by Chafe and his co-workers in cross-cultural studies on the role of internal schemas in text construction has been presented. 48 children (16 at each age level) were listeners, who could ask questions when they did not understand what was said. The investigation consisted of two phases: the preparatory phase, when co-narrators planned their narration for listeners, and the proper narration phase. According to the research design, the children together were subsequently to prepare a picture book about this film adventure. Narratives constructed in both phases were recorded on audiotape and children nonverbal behaviour were registered on observational sheets from which detailed transcriptions were made.

The main goal of research was to analyse the process of argumentation, the resulting structures and the functions which argumentation fulfills in children's narrative discourse as well as age related differences occurring across the preschool age span. Results dealing with two types of argumentation: concerning the content of children narrative texts and concerning the process of narrative texts co-construction are discussed.

TUESDAY   Session   C: LANGUAGE AND COGNITION
11:15 - 11:45   Room C

THINKING OF OBJECTS IN TWO BASIC WAYS AT ONCE

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In a number of current problems in language and thought, investigators have made an appeal to a general proposition: that young children have trouble thinking of the same object in two different ways at once, because of representational limitations. This idea has been pursued as an explanation of Mutual Exclusivity, a heuristic proposed by Markman (1990) that children are biased towards having only one name for an object. It has also played a role in appearance-reality studies (Flavell, Flavell, and Green, 1986) in which children, for example, have difficulties with understanding that something could look like a rock but be a sponge.

In fact, objects do have more than one name. Something can be a dog and an animal, or a man and a doctor at once. It is now commonly conceded that children can deal with an object being able to be referred to at two different levels in a taxonomic hierarchy, e.g., 'dog' and 'animal.' (Waxman, 1992). But it is still explicit in many theories that for young children, an object is best thought of as having one categorization at a time (and hence one name) at the 'basic' or 'basic object' level.

In the study to be reported here, children were asked to deal with two kinds of double basic level categorization: 1) "hybrid objects," e.g., a crayon which looks like a dinosaur, and 2) people in social roles, so that they are, for example, a woman and a doctor at once. Children were asked in various situations to produce names for these, and also asked if the objects could be both kinds of thing at once (with controls to make sure they were not just agreeing with whatever the experimenter proposed). Results show that , three- and four- year olds both readily produced more than one name for objects, and even more readily confirmed that an object could be in two basic level categorizations at once even as they consistently rejected proposed false double categorizations. The results show there is no strong representational limit prohibiting thinking of the same object in two different basic categorizations at once.

TUESDAY   Session C: LANGUAGE AND COGNITION
11:45 - 12:15   Room C

PERMEABLE MODULES: ON EVOLVING AND ACQUIRING LANGUAGE-SPECIFIC CAPACITIES

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Philosophers of language, notably J.L. Fodor, propose that the human language capacity consists of hardwired 'modules' which interact at higher levels but function independently at lower levels. We argue that a gradient view of the components of language as complex and interwoven rather than as monolithic and impermeable is more congruent with developmental and evolutionary perspectives, and with current neurolinguistic findings. It can also help answer questions like: How could such a system have evolved? What would it mean to have a partial system?

We first consider the human vocal tract, itself a subset of the total language system, as a conceptual model for a complex integrated system with various parts. Some are hard-wired and cognitively impenetrable; others are acquired (at different times), and are subject to voluntary control, with the whole working smoothly together. We then transfer this approach to language as a whole.

The vocal tract's original anatomy of respiratory and ingestive organs further evolved to accommodate an 'overlaid' communicative function. One important change was the (evolutionarily and developmentally) late elongation of the neck, resulting in an increase in vocal variety, although at the cost of increased risk in inhaling food. Respiration is controlled by largely involuntary neural circuitry that can acquire the ability to produce language-specific prosodic patterns; these are largely in place by the 2nd year of life as 'jargon' prosody, but come under increasing syntactic control as knowledge of language grows. These prosodic patterns become automatized in their turn - they can rarely be acquired for a second language after middle childhood, and are difficult for the prelingually profoundly deaf even when they are within the range of signals that

become audible with amplification. Prosodic control can also be selectively disrupted in adulthood by brain lesions ('foreign accent syndrome'). So the prosodic control mechanism must be in some way specific to Language, must be acquired during a critical window, varies across languages, and can be quite automatic. It is simultaneously dependent on the respiratory mechanism, highly respondent to social/cognitive factors external to language structure, and under considerable voluntary control.

Similarly, Language is controlled by sections of brain that are necessary for its operation, but not exclusively dedicated to it. Like the pre-existing respiratory system, these areas must have originally had another purpose and been modified to support Language as we know it. A dynamic systems view that sees the 'parts' of language as heterogeneous, interlocking, and overlaid can help us address evolutionary questions. Rather than deciding whether our ancestors did or did not 'have' a particular area of the brain, we can consider what kinds of functional precursors could have evolved into our present interlocking ontogenetically developing system.

TUESDAY   Session C: LANGUAGE AND COGNITION
12:15 - 12:45   Room C

PATTERN-FORMATION IN EARLY LANGUAGE DEVELOPMENT

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This paper proposes an approach to the study of language development that emphasizes the centrality of self-organization under various linguistic and biological conditions. The focus is set on two phenomena observed in the organization of living systems: the search for coherence and the increasing complexity characterized by differing degrees of persistent order. Data from various instances of language acquisition will illustrate the non-linear processes of pattern generation, i.e. the dynamic experience-dependent shaping of an incipient system into a highly-specialized network of interacting modules.

The state of the art of neurobiological research and the complex nature of cognitive systems do not perm;t a direct exchange of findings, but there are principles of neuronal organization which can serve as mainstays (within the given limits) for models of language development. Primal candidates are the processes involved in scene-segmentation and figure-ground segregation. As our data suggest children's preferences in the selection of input data are in accordance with the principles of neuronal group selection, i.e. saliency, frequency and repeated occurrence in a comparable configuration play a dominant role in sorting out the patterns of the input. Samples of child-directed speech (CDS) give evidence of the variety of cues parents/caretakers employ to stimulate inborn dispositions and to ease the search for coherence.

Results of (1) a current project on early linguistic processing in mono- and bilingual children and (2) a previous large-scale study on hearing-impaired and blind children will show that the systems involved are operating at different time scales. The question of modularity is thus a matter of development and complexity. The impact of cross-linguistic exigencies and/or sensory deprivation (experienced in the shortage of primary linguistic data) on the development of computational and lexical systems might answer some of the pending questions in the long-standing nature-nurture debate.

TUESDAY   Session A: INPUT
16:45 - 17:15   Room A

MATERNAL INPUT AND EARLY LEXICAL DEVELOPMENT: WORDS AND COMMUNICATIVE GESTURES

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Over the past 20 years, a large body of research has underscored the importance of gesture in the first stages of communication. Investigators have observed that very young children use two types of gestures--*deictic* (SHOWING, POINTING, and REQUESTING) and *representational* (e.g., shaking the head NO, flapping the hands for BIRD) gestures-to refer to and communicate about external objects and events. Research has also highlighted the remarkable similarities between production in the gestural and vocal modalities during the first stages of language acquisition and the transitional function served by gesture in providing the child with an intermediate step in the passage to successive phases of communicative development. Despite the demonstrated importance of young children's gestures, investigation of maternal use of gesture in early mother/infant interactions has been largely neglected. The aim of this study was to explore the role of maternal input (gestural and verbal) in young children's communicative and linguistic development. Twelve upper-middle-class mother-child dyads participated in the study. The families were native speakers of Italian, and all of the children were developing normally. Two videotaped, 45-minute observations were conducted at home when children were 16 and 20 months of age. During the sessions, mothers were instructed to play and interact with their children as they normally would. All communicative gestures and words produced by both mothers and children were transcribed from the videotapes. Data analyses focused on maternal gesture and speech production (types and tokens), the relationship between maternal gestures and words and children's production of words and gestures, and links between maternal communication and children's communicative styles. Results are discussed in

terms of contemporary analyses of the communicative functions of gesture, the integrated nature of the gesture-speech system, and ways in which gesture may help children disambiguate information in speech.

TUESDAY   Session A: INPUT
17:15 - 17:45   Room A

MOTHER-CHILD INTERACTION IN MEXICAN DYADS

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It has been argued that the mother's communicative purpose is one of the elements that define the characteristics of the speech she addresses to the child. Two basic communicative styles have been described; conversational/nurturant and directive; the former, is regularly used to share and talk with the child while the latter is the most frequently employed to control the child's actions (Mc Donald & Pien, 1982). On the other hand, it has also been recognized that maternal semantic contingency is one of the most regularly found traits in mother-child discourse (Pine, 1994). However the level and form of expression of this contingency is strongly determined by the mother's expectations towards the child's abilities and social role (Blount, 1972). It has also been observed that maternal discourse varies depending on the child's communicative and linguistic abilities (Snow, 1977).

The purpose of this research was to gain some understanding of the way in which Mexican mothers relate communicatively to their young children. This research describes mother-child interactions of ten dyads in a communicative event called *free play* there it is assumed that the mother's communicative purpose is basically to share an activity with the child, as opposed to having the child to do something. Children's age range was from 23 to 31 months. Two basic categories were analyzed in the mohers discourse: semantic contingency and communicative style. Also, children's discourse was analyzed in terms of structural complexity and communicative cooperation traits.

Results showed that mother-child dyads relate communicatively in a balanced way in free play, since even though the mothers always produced a greater number of utterances than their children, the number of utterances per turn is very similar within each dyad; those dyads where more topic changes were found, are integrated by children with a more limited verbal repertoire. Finally, these mothers presented

a discourse that can be characterized by a high level of semantic contingency and little tendency to control child's actions. Although their speech was not predominantly directive, it showed traits of this kind of discourse.

Blount, B.G. (1972). Parental speech and language acquisition: some Luo and Samoan examples.. *Anthropological linguistics*, 14,119-130.

Mc Donald, L. & Pien, D. (1982). Mother conversational behaviour as a function of interactional intent. Journal of child language. 9, 337-358.

Pine, J.M. (1994). The language of primary caregivers. In c. Gallaway & B.J. Richards (Eds.) *Input and interaction in language acquisition* (13-37). Cambridge: Cambridge University Press.

Snow, C.E. (1977). Mother's speech research-from input to interaction. in C.E. Snow & C.A. Ferguson (Eds.) *Talking to children* (pp. 31-49) Cambridge: Cambridge University Press.

TUESDAY   Session A: INPUT
17:45 - 18:15   Room A

INCLUDING NON-VERBAL COMMUNICATIVE ACTS
IN THE MLT (MEAN LENGTH OF TURN) ANALYSIS USING CHILDES

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Maria del Pilar Fernandez -Viader
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Introduction and aims

The CHAT transcription format (CHILDES, *Child Language Data Exchange System*) makes possible to include non-verbal behaviors, but some considerations must be done in relation to the use of some of the CLAN analisys programs when non-verbal data are included in association with no-speech (0) in the transcription main line. Our aim is to explore the usefulness of the MLT program to analyze the conversational turns distribution in mother-child interaction when non-verbal communicative acts are included and considered conversational units, at the same level of utterances.

Method

We have conducted an observational-longitudinal study in familiar context.
Subjects: Six mother-child diads: two mother-deaf child (1.7 and 2 years of age) diads.
One of the mothers is hearing impaired too; two mother-child with Down syndrome
(ages between 4 and 7 years) diads and two mother-normally developed child (1 year of
age) diads. The mother-child with Down syndrome diads have been involved in a
naturalistic intervention for six months.
Procedure: the data have been video recorded and have been transcribed in CHAT
format (CHILDES, *Childes Language Data Exchange Program*).
Analysis: we have used the MLT program to calculate some previously defined indexes
of conversational turns distribution (turn balance, turn density and turn initiatiations).
Non-verbal communicative acts are included in the analisys.

Results and conclusions

In basis of our results, we can conclude that the MLT program is adequate to analyze
the conversational turn distribution, even when non-verbal communicative acts are
considered at the same level of utterances. Some conventions must be respected, both
in the transcription process and in the analisys command, and some distinctions
between non-verbal communicative materials and non-verbal non-communicative
materials- must be attended to. We comment and systematize these conventions and
distinctions in order to facilitate other researchers analysis.

TUESDAY   Session B: BILINGUALISM
16:45 - 17:15   Room B

ACQUIRING BILINGUAL COMMUNICATIVE COMPETENCE

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Hungary

This is a recent study examining the development of communicative competence of Hungarian-Russian bilingual preschoolers and is a part of an integrated project studying their bilingual competence and socialization.

Eighteen children (10 girls and 8 boys)- brought up within an intellectual family background with Russian mothers and Hungarian fathers were investigated. It is important to point out that Russian is not a language spoken by an ethnic minority in Hungary. The families have been residents of various districts of Budapest for an average of six years and none of them lived with their grandparents.

Children varied in age from 3;5 to 6;11. Group A included nine children (av. age: 4;2), as did Group B (av. age: 6;1). The bilingual children attended-Hungarian nursery schools.

Early experiments with these children showed that the Hungarian language is dominant in both groups, but the dominance coefficient is twice as great in Group A as in Group B. To classify children as balanced bilinguals, a permissible interval was defined for every child. According to this criterion children were separated into a balanced group and a group with Hungarian dominance.

The linguistic material of this study was carried out in natural conversation with each child in a free play situation and in demonstrating 10 unconnected pictures, representing the play-world of children. Testing was first in Russian, then two weeks later in Hungarian with respective mother tongue researchers. Assessments were type-recorded arid transcribed using CHAT coding format.

Analysing grammatical and strategic competence as a constituent part of communicative competence, different patterns were found between the balanced and Hungarian dominance groups. Thus, children of the -balanced group manifested more significantly the strategy "stay in any case in the frame of one language" than children with Hungarian dominance. Contrary to this, the latter group used more frequently borrowing, code-mixing and code-switching, especially in Russian. In certain situations the children of both groups demonstrated communicative interference.

TUESDAY   Session B: BILINGUISM
17:15 - 17:45   Room B

THE LINGUISTIC CAPACITIES OF TURKISH-FRENCH BILINGUAL CHILDREN IN FRANCE

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This study aims to characterize the Turkish acquired by Turkish-French bilingual children living in the Turkish immigrant community in Grenoble, France. For the vast majority of children in this situation, once schooling begins (at 3 years), Turkish becomes the weak language and French the strong language. The question which guides our research is in what respects is the development of Turkish different in our population in comparison to Turkish monolingual children.

Oral narrative texts were elicited using *Frog, where are you?* and following the procedures outlined in Berman and Slobin (1994) in both French and Turkish from 100 subjects, ranging in age from 5 to 10 years. The present study examines only the texts in Turkish.

Our results show that, in comparison to Turkish monolingual children, our immigrant children avoid the use of complex verbal constructions and are delayed in their ability to construct a narrative text. Even the oldest subjects (10) created texts that simply described the images in a linear sequence, similar to 5-year-old Turkish monolingual children.

We will argue that there are in fact two inextricable reasons for our subjects' impoverished texts. The first reason is that the children are unable to use complex verbal constructions in Turkish necessary for the production of an elaborate story. It would appear that their development in Turkish fossilises and does not continue to develop after the point at which French becomes their dominant language and the language used in school. The second reason is related to the social class origins of our population. The level of education of our subjects' parents, all of whom originate from rural communities in Turkey, is in general very low. Evidence for this comes from the fact that those children who attempted to use complex constructions have parents with a higher level of education. Literacy related activities do not seem to be part of our children's exposure to Turkish. In our conclusion we will briefly compare the children's stories in Turkish to their stories in French. The narratives collected in their strong language give ample evidence of our subjects' narrative competence.

TUESDAY   Session B: BILINGUISM
17:45 - 18:15   Room B

TELL ME WHY!
EXPLANATIONS IN CONVERSATIONS WITH TURKISH BILINGUAL AND SWEDISH MONOLINGUAL CHILDREN ACROSS ACTIVITIES AND SETTINGS

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The paper will discuss some findings of the project: Language Socialization In Immigrant Families and its Relation to the Swedish Preschool. Our hypothesis in the project has been that differences in how language is used in the home and in the pre-school and school may account for some of the documented difficulties the Turkish children encounter in the Swedish school (Eyrumlu 1991). Researchers such as Snow et al (1990), Heath (1986) and Tizard & Hughes (1984) have shown in studies of monolingual pre-school children that different ways of handling relatively non-immediate language activities, e.g. telling narratives and handling explanations, have measurable effects on the development of languages skills central to later success in school.

In our project, we have collected and transcribed data from adult-child conversations involving Turkish bilingual and Swedish monolingual 5-6 year old working-class children. All the children are attending Swedish mainstream pre-schools. Each child has been recorded in two different settings - at home with her/his mother and at pre-school with a staff member -and in four different activities in each setting: a mealtime, a play situation, looking at a photo album and "reading" a text-less story book.

This paper will present results on the use of explanatory talk by adults and children in the home and in the pre-school, making comparisons between the different kinds of explanations used by the different adults and children in the activities studied.

We find that cultural background and setting is of minor importance on the total amount of explanatory talk. The activity, however, has a major impact not only on the number, but also on the type of explanations used, as well as on the expectations on the children's participation in the conversation.

ACQUISITION OF NARRATIVE COMPETENCE IN A BILINGUAL CONTEXT

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Tilburg, The Netherlands   Nijmegen, The Netherlands

In this paper the acquisition of narrative competence of Turish children living in the Netherlands will be explored. An attempt will be made to find out how children in this bilingual context learn to use cohesive devices in both their first and second language. The data base for this consits of narratives produced by two cohorts of 25 children, respectively 4- and 8-years-old. In each cohort oral recordings of the children's retelling of a storybook, called the Frog-story, which has been used on a large scale in cross-linguistic studies (Berman & Slobin, 1994), have been collected in both Turkish and Dutch. Moreover, in both Turkey and the Netherlands similar data have been collected among control groups consisting of monolingual children at age 5, 7, and 9.

In order to evaluate children's growth of narrative competence two types of analyses have been conducted. First of all, an analysis was made of the story structure the children built up in both the monolingual and bilingual context. By investigating the children's story schema it was explored to what extend they had learned pragmatic rules in telling coherent stories., taking into account the setting and the plot involved. In addition, the linguistic devices used by the children to encode the story in a cohesive way were examined in two ways. On the one hand, the children's devices for topic continuity were uncovered. On the other hand, their way of enchoring the story in time was analyzed. The results show that the bilingual children have acquired the pragmatic rules for building stories at an early age. However, given the fact that their linguistic skills in both the first and the second language are limited they have problems in making their stories in the two language cohesive.

TUESDAY   Session C: SEMANTICS / PRAGMATICS
16:45 - 17:15   Room C

INFANTS USE LEXICAL PRINCIPLES TO GENERALIZE ACTION VERBS

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Two studies focused on when and how infants extend verbs using dynamic events and the visual preference paradigm. Of further interest was whether the size of infants' productive verb vocabulary was related to their verb generalizations. Familiarization trials introduced standard actions depicting verbs (throw, brush, close-Study 1; kick, pick-up--Study 2) familiar to 20- and 26-month-olds. Test trials in both studies consisted of simultaneous presentations of slightly altered versions of each standard action on two side-by-side video monitors (e.g., throw, brush). On test trials, the outcome, manner, agent, or instrument differed from the standard actions. Control (both studies) and saliency (Study 2) trials were included. Test and control trials were introduced by a verbal prompt: "Look! Who is _ing? Find_ing.".

In both studies the number of seconds looking at the action matching the auditory stimulus on test and control trials was converted to a percentage, then compared to chance (50%). In Study 1, 28 20-month-olds (mean age = 20;8) looked significantly longer than chance at throw and brush on control trials, both $ts(22) > 3.45$, $p > .01$. No other percentages on test trials differed significantly from chance. In Study 2, a new sample of 20 20-month-olds (mean age = 20;12) looked significantly longer at kick and pick-up on control trials, both $ts(19) > 3.12$, $p < .01$. Additionally, high vocabulary 20-month-olds (median number of verbs produced = 26) located the target on trials where the agent differed from the standard action significantly above chance levels, $t(8) = 2.70$, $p < .05$. In contrast, 20 26-month-olds (mean age = 26;14) not only demonstrated their facility in finding the target verb on control trials, $t(19) = 5.52$, $p < .0005$, but also found the target on trials where the agent, $t(19) = 4.72$, $p < .0005$ or manner, $t(19) = 4.77$, $p < .0005$ differed from the standard action. Furthermore, high vocabulary 26-month-olds (median number of verbs produced = 83) looked at the target on outcome trials at a level approaching significance, $t(7) = 1.52$, $p < .10$. Results were not due to the saliency of either action.

In sum, 20-month-olds in both studies failed to extend familiar verbs to actions in which the overall gestalt (e.g., manner or outcome change) had been altered from the original action. In marked contrast, 26-month-olds generalized familiar verbs to actions in which either the manner of action or the agent performing the action differed

from the original. These findings are interpretable in terms of the lexical principles framework proposed by Golinkoff, Hirsh-Pasek, Mervis, & Frawley, 1995.

References

Golinkoff, R.M., Hirsh-Pasek, K., & Mervis, C. (in press). Lexical principles can be extended to the acquisition of verbs. In M. Tomasello & W. Merriman (Eds.), Beyond names for things: Young children's acquisition of verbs. Hillsdale, NJ: Lawrence Erlbaum & Associates.

TUESDAY   Session C: SEMANTICS / PRAGMATICS
17:15 - 17:45   Room C

SCOPE DEPENDENCY IN THE ACQUISITION OF CHINESE QUANTIFIERS

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Recent studies have shown that quantifier phrases are subject to severe scopal restrictions: whether a QNP can take scope over another QNP in the same clause depends on its syntactic position and its internal composition (cf. Liu 1990, Beghelli 1992). Even if either of two QNPs can take scope over the other, the scope dependent readings may not be available to the same extent and branching (scope independent) readings may also be involved (cf. Gil 1992, Beghelli, et al 1993). Scope dependency has also been observed to be constrained by thematic roles, though a systematic understanding of the phenomenon is yet to be developed (cf. Ioup 1975, Jackendoff 1983). Previous acquisition studies have demonstrated the late acquisition of language-specific scope principles (cf. Chien and Wexler :1989, Lee 1991), and have examined whether the entities quantified are objects or events (cf. Philip 1994). The issue of scope dependency has not been examined in detail.

This paper addresses the following questions:
a) When do Chinese children develop an understanding of scope dependency? Do they find branching readings easier or more difficult than scope dependent readings?
b) Do Chinese children interpret NPs with *mei* 'every' and (Nps with *souyou* 'all' differently, with respect to scope assignment?
c) Are Chinese children's scope interpretations constrained by the thematic hierarchy?
d) When do Chinese children acquire the isomorphic scope interpretation principle, which is language-specific (cf. Huang 1982)?

I will report findings from a cross-sectional study of 55 Mandarin Chinese children aged between 4 and 8 years using a truth judgment task. Children were asked to judge pictorial representations of scope interpretations for sentences containing a universal quantifier ('every' or ,each') and a bare plural numeral phrase in subject and object positions with control for theta roles. 'Three types of readings were included: a wide scope of the universal quantifier reading, a scope independent reading, and an each-all reading (cf. Barwise 1979, Sher 1990).

The results show that four year-olds accepted both branching and scope dependent readings. As the children grew older, the percentage of rejection of the branching reading increased. Significant differences between 'every N, and 'all N' were observed: children were more likely to assign wide scope to the universal quantifier for 'every' than for 'all'. A significant effect of theta roles was found for both children and adult subjects: scope dependency was disrupted when the thematic hierarchy was violated. The study confirms earlier act-out studies on the late acquisition of language-specific scope principles.

TUESDAY   Session C: SEMANTICS / PRAGMATICS
17:45 - 18:15   Room C

CONCEPTUAL CHANGE AND SEMANTIC DEVELOPMENT: CHINESE CHILDREN'S ACQUISITION OF "ALIVE"

Bee Chin Ng
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This study investigates the role of semantic component in children's appreciation of the ontological distinction between biological and nonbiological objects through the study of Chinese children's acquisition of "alive". Though several studies indicated that the differences in conceptual understanding between young children and adults are not merely semantic, Carey (1985) highlighted the possibility that children may represent a concept such as `alive' with the same extension as the adult's, but have not mapped the adult word onto that concept. Thus, developmental difference could be given a semantic explanation rather than a more general conceptual one. The issue of semantic component interfering with children conceptual development is especially relevant to Mandarin Chinese because of the structure of Chinese word morphology. The word *huo* "alive" in Mandarin Chinese forms part of a compound in at least 30 frequently occurring words in the lexicon. Many of these words refer to types of movement. Hence, it is conceivable that the semantic structure of *huo* "alive" compounds may have

an influence in Chinese children's conceptual organisation. Thirty Chinese children, ten at each of the three ages (4, 7, and 10) participated in this study. They were drawn from the kindergarten and primary School in Huo Zhong Central University in Wuhan. The standardised Piagetian procedures were used. The children were shown pictures of mountain, sun, table, car, cat, cloud, lamp, watch, bird, bell, wind, aeroplane, fly, fire, flower, rain, tree, snake, bicycle, and pencil. They were asked to judge if each item was "alive". After each judgement, they were asked to provide justification for their answers. The answers were scored according to the protocol set up by Laurendeau and Pinard's (1962) criteria. The findings indicate significant differences when compared to other studies reported. In the discussion, I point out how both different semantic organisation and belief system contribute to the children's conceptual understanding of "alive". Implications for recent critiques of Piaget's (1929) developmental account of childhood animism will also be addressed.

TUESDAY   Session C: SEMANTICS / PRAGMATICS
18:15 - 18:45   Room C

DISCOURSE FOCUS SHIFTING AS A SOURCE OF SEMANTIC CHANGE IN CHILD LANGUAGE: EVIDENCE FROM MANDARIN MODAL AUXILIARIES

Jiansheng Guo
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The facilitating and scaffolding function of interpersonal discourse for the development of children's linguistic systems has been widely reported (e.g., Halliday, 1975; Slobin, 1981, 1985; Ervin-Tripp, 1989). However, it is not clear exactly in what ways interpersonal discourse functions facilitate children's acquisition of their language. This study takes the long advocated functional approaches to language acquisition one step further and examines in detail the actual processes that motivate and contribute to the developmental changes in child language.

Using data from Mandarin-speaking children's interactional discourse, focusing on the use of Mandarin Chinese modal auxiliaries, this paper argues that the discourse goals as determined by the specific interactional contexts are a major factor which shifts the speaker's actional and discourse attention. The Discourse Focus Shift is argued to be an important mechanism of semantic change in child language development.

The data were collected from 3-, 5-, and 7-year-old Mandarin-speaking children. This paper will focus on the use of three Mandarin modal auxiliaries: *yao* 'want', *neng* 'can', and *hui* 'know-how-to' by these three age groups, and will illustrate how the interactants' focus of attention in discourse motivates the change of meanings of these modals in the domains of dynamic, deontic, and epistemic modality and temporality. It will be further argued that the resulting semantic change has ramifications to the change of syntactic categories of these modals.

The paper concludes that the child learns language not just as a lonely mechanic grammatical puzzle solver, or as a disinterested outside observer, but rather, as an active participant constantly interacting with other children with specific communicative and interactional goals. And it is these communicative and interactional goals that constitute a formative force in shaping children's language.

THURSDAY   Session A: PHONOLOGY
9:00 - 9:30   Room A

ON PHONOLOGICAL BOOTSTRAPPING

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In theories of syntactic acquisition, it is commonly assumed that children have pre-wired knowledge of major categories such as 'noun', 'verb', etc. Given these categories, how do they decide to what particular syntactic category a word in the input belongs? Various solutions have been proposed: children are thought to use semantic clues to category membership (semantic bootstrapping, Pinker 1987), they use distributional properties to assign category membership (distributional or correlational bootstrapping, Maratsos 1982), etc. Phonological bootstrapping has been proposed as a solution to the segmentation problem (Juszcyk 1993, Cutler & Norris 1988), i.e., how do children detect the boundaries of major syntactic entities, such as clauses, phrases and words. This line of investigation has not been persued up to the level of linking particular words to their syntactic category (or categories).

In this paper, we explore the question how far children can get in assigning appropriate syntactic categories on the basis of phonological evidence. Given an initial linking of words with major syntactic categories on the basis of semantic clues (Gentner 1982, Maratsos 1990) and pragmatic clues (Gillis 1990), how accurate will syntactic category assignment be on the basis of exploiting the phonological characteristics of words?

And how much will that accuracy be augmented if also distributional properties are taken into account.

The research reported in this paper utilizes artificial learning algorithms to explore the hypothesis that phonological cues are fairly robust. Experiments were conducted showing that for Dutch a success rate of more than 80% can be reached solely on the basis of the phonological structure of words and that this success rate can be drastically ameliorated if also distributional evidence is taken into account.

References

Cutler, A. & Norris, D.1988. The role of strong syllables in segmentation for lexical access. *Journal of Experimental Psychology* 14:113-121.

Gentner, D.1982. Why nouns are learned before verbs. In Kuczaj, S. ed. *Language development. Vol. 2*. Hillsdale: Erlbaum.

Gillis, S.1990. Why nouns before verbs? Language structure and use provide an answer. Paper presented at the Fifth International Congress for the Study of Child Language (Boedapest, July 1990)

Juszcyk, P.1993. From general to language specific capacities. *Journal of Phonetics* 21: 3-28.

Maratsos, M.1982. The child's construction of grammatical categories. In Wanner, E. & Gleitman, L. (eds.) *Language acquisition*. New York: Cambridge U.P.

Maratsos, M.1990. Are actions to verbs as objects are to nouns? *Linguistics* 28:1351-1379.

Pinker, S.1987. The bootstrapping problem in language acquisition. In MacWhinney, B. ed. *Mechanisms of language acquisition*. Hillsdale: Erlbaum.

THURSDAY   Session A: PHONOLOGY
9:30 - 10:00   Room A

THE EMERGENCE OF CATENATIVES FROM FILLER SYLLABLES

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The English catenative verbs, such as want-to and going-to, are main verbs in their own right, with the verb they introduce belonging to another clause. Moreover, for some of these verbs (want and like, but not have or going) the possibility exists for each verb to have a distinct subject, e.g. SUBJi want SUBJj to VERB. How do

children discover the syntax of such constructions? Observation of early child speech suggests that they do not need to control two-clause constructions before producing sentences with **wanna** or **liketa**. How then do these structures acquire the full range of adult possibilities?

This paper traces the emergence of catenative constructions in the longitudinal data for a single English-learning subject between 22 and 48 months. Their evolution can be traced from "filler syllables" that slowly differentiate phonologically, syntactically, and functionally until adult targets are recognizable. Stages in the process include:
fillers: a single positionally defined (preverbal) class of phonologically undifferentiated nasal syllables;
protomodals: a single class of recognizable lexical items (e.g. **wanna, gonna, let, can**) that are still syntactically undifferentiated;
request-initiators: a subclass of the protomodals developed to initiate requests for action by another, including want N to V, let N V;
catenatives: adult-like constructions with **want, like, going, have**, etc. followed by a second verb.

This developmental sequence suggests that, although catenative constructions, which involve two verbs (the first finite, the second not) and at least the possibility of two subjects, seem complex in adult grammar, they can have their origins in a relatively simple kind of construction, namely a single-subject sentence in which the single main verb is modified by one of a single class of protomodals. Interestingly, it is the semantically prominent but syntactically "lower" second verb that first achieves expression in the child's developing grammar.

THURSDAY   Session A: PHONOLOGY
10:00 - 10:30   Room A

PHONOLOGICAL PROCESS ANALYSIS IN THE SPEECH OF PHONOLOGICALLY DISORDERED CHILDREN

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Background

It has always been stressed that crosslinguistic studies in both normal and disordered child phonology may provide evidence for language universals and/or language-

specific factors (Ingram, 1991). Thus, evidence from the errors of phonologically disordered children acquiring different languages may contribute to the classification of phonological disorders both in Turkish and in other languages.

Aim

The main aim of this study is to describe the phonological processes in Turkish-speaking children who were consequently diagnosed as speech disordered and referred to Anadolu University for therapy.

Method

Subjects: The subjects were 10 Turkish children, 5 boys and 5 girls aged between 5:0 and 7:0 years. All were monolingual and attending nursery classes. All were diagnosed and referred to Anadolu University, Speech and Language Unit as having articulation disorders, unintelligible speech or speech delay with unknown aetiology.

Procedure: The study was a descriptive one. A phonological assessment procedure "Turkish Phonological Assessment Kit", which was devised beforehand (Topbas, 1994) was used. Turkish Phonological Assessment Kit includes both the data collection and assessment phases. The Phonological process analysis covered the syntagmatic and paradigmatic processes.

All the errors the children made were described in terms of phonological processes that were used by normal children. Processes that were not used by normal children were identified according to a frequency criterion and described in terms of unusual or idiosyncratic processes.

The results of the analyses will be compared with those of 90, 2 to 6-year- old children whose language have been analysed to provide a profile of phonological acquisition in Turkish. Further discussion will be made in order to establish a criterion for the classification of speech errors in Turkish..

References

Topbas, S. (1994) *Dil ve konusma Sorunlu Çocuklarin Sesbilgisel Çözümleme Yöntemi ile Degerlendirilmesi ve Konusma Örüntülerindeki Sesbilgisel Özelliklerin Betimlenmesi.* Yayinlanmamis Doktora Tezi. Anadolu Universitesi. Eskisehir.
Ingram, D. (1991). "An Historical Observation on Why 'Mama' and 'Papa'?". *Journal of Child Language*,18, 711-713.

THURSDAY   Session B: LEXICON
9:00 - 9:30   Room B

ADULT INPUT FOR LEXICAL DEVELOPMENT: CONTRAST AND CORRECTION IN CONTEXT

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The Principle of Contrastive Usage states that contrastively used words are not only different but also similar in meaning. That is, the semantic relation between contrasted words tends to be *coordinate*, since coordinates are conceptually similar (e.g. *cat* and *horse* both refer to a kind of *animal*). If children have grasped the principal, contrastive input might help them in developing coordinate lexical relations.

We investigated weather the Principle of Contrastive Usage holds for the linguistic input that young children receive from their mothers. Related research questions concerned the relationship between contrastive usage and correction, and the role of individual and situational variables in this relationship.

The spontaneous speech produced by two mother-child dyads, in natural interaction at home, was analysed. Speech samples were collected at regular intervals between ages 2;6 and 3;0. Only nouns were examined. Two communicative situations were distinguished 'free conversation' and 'visually guided conversation' (book reading, making a puzzle). Four subcategories of contrast/correction were distinguished in the input: *non-corrective contrast* ('It is not X, it is Y' used for non-corrective purposes), *corrective explicit contrast* ('It is not X, it is Y' used for corrective purposes), *corrective implicit contrast* ('(No), it is Y' in response to a child's 'It is X'), and *non-contrastive correction* (corrective utterances in which the correct term 'Y' is not mentioned, e.g. 'It is not X' in response to the child's 'It is X').

It was found that contrastive usage and correction are strongly correlated in the input, is that contrastive usage usually has a corrective function and correction usually takes a contrastive form. However, it was also found that contrastive usage, rather than correction, is sensitive to aspects of communicative situation, whereas correction is more sensitive to individual differences between dyads. As to the character of the relationships between contrasted terms, results indicate that the coordinate relation is predominant, most notably in non-corrective contrast. Thus, the conclusion is that adult input seems indeed to be governed by the Principle of Contrastive Usage. Interestingly, results also indicate that mothers, when using contrast *correctively*, have a preference for *explicit* over implicit contrast when there is *any* kind of similarity

between the contrasted referents, that is, not only when the relation between contrasted terms is one of the conceptual similarity (the coordinate relation) but also when it reflects a similarity that is mainly perceptual or functional.

THURSDAY   Session B: LEXICON
9:30 - 10:00   Room B

WHAT COLOR IS THE CAT? COLOR WORDS IN PARENT-CHILD CONVERSATIONS

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Color terms are an essential component of children's developing lexicons. In order to use color terms appropriately, children must learn the words themselves, as well as how to apply them correctly to various objects in their surroundings. The conceptual basis for the acquisition of color terminology has been investigated in laboratory studies (Andrick & Tager-Flusberg 1986; Bartlett, 1977; Carey &Bartlett, 1978). In addition, Berlin & Kay (1969) proposed a universal hierarchy of color terms that they claimed would predict, on conceptual grounds, the order of acquisition of color terms by children: black/ white; red; yellow/ green; blue; brown; purple / pink/ orange / grey.

Laboratory studies have provided limited confirmation of predictions based on universal hierarchies or cognitive strategies. Parental use of color terms, on the other hand, has been little studied, although an examination of color terms in the input to Brown's subjects Adam, Eve, and Sarah indicated a correlation between maternal and child use (Andrick & Tager-Flusberg 1986). The purpose of this study is to investigate the spontaneous use of color terminology in a much larger sample of children and parents so that the role of input in the acquisition of color terms can be more adequately addressed.

Subjects included 24 preschool age children (12 boys and 12 girls) seen individually in a laboratory playroom twice, once with the child's mother and once with the father, for a half hour play session each time. On each occasion, the parent and child read a wordless picture book, played with toys, and played "store". No attempt was made to elicit color terminology, and no obviously color-related activity (e.g., coloring with crayons) was included. Transcripts of the sessions were analyzed for parents' and children's use of all color words.

Results indicate that the color words used by parents were exactly the ones designated by Berlin and Kay and noted above. In terms of frequency, the primary colors red, yellow, and blue were by far the most common. Moreover, the parents engaged in many teaching episodes, not called for by the situation, naming colors and asking test questions, e.g. "What color is that cat?" (while looking at the picture book). Thus, although children universally possess cognitive propensities that predict the order of acquisition of color terms, adults' language to children reflects and emphasizes a similar color hierarchy.

THURSDAY   Session B:LEXICON
10:00 - 10:30   Room B

RELATIONS BETWEEN LANGUAGE INPUT AND THE SEMANTIC STRUCTURE OF LEXICAL TERMS IN THE ACQUISITION OF LEXICAL MEANING

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Spatial dimensional adjectives (e.g., big, tall, long, broad, deep and their antonyms) have recently been the subject of intense theoretical and empirical controversy, focussed in particular on the structure of lexical meaning. Despite this attention, relevant psycholinguistic research has revealed a series of inconsistencies throwing doubt on the proposed structure: A major problem has been the adequacy of semantic descriptions of dimensional adjectives.

Beginning from an alternative semantic description, we have been able to predict, based on semantic complexity, an order of difficulty for these adjectives quite distinct from that suggested by traditional theories. This order has been corroborated in our empirical work on the comprehension of these adjectives by 50 children in five age groups from 2;9 to 6;0. The only finding not consistent with the predictions had to do with the youngest children's understanding of adjectives relevant to height and length; the positive poles (high and long)þ generated better performance than the negative poles (low and short), though we had predicted no difference in complexity.

Here we present the results of a further study with 20 adult subjects, carried out to seek an explanation for these unexpected findings. Specifically, we tried to determine the influence of linguistic input directed to children, using a two-part task like that developed by Anglin for his work with hierarchical taxonomies. In the first part, adults

addressing an adult. The results revealed differences relevant to the difficulties shown by the children in the comprehension study. These results will be discussed in relation to their importance for the acquisition of lexical meaning, by analyzing the relation between input language and children's semantic structures for the same lexical terms.

THURSDAY   Session C: PRAGMATICS
9:00 - 9:30   Room C

THE ABILITY TO PLAY A ROLE AS EXPRESSION OF COMMUNICATIVE COMPETENCE

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Communicative competence comprises, among other things, such skills as the ability to take into account someone else's perspective, knowledge about people and the ways in which social roles are played, as well as mastery of linguistic forms appropriate for a given role.

The research done so far was mostly concerned with the ability of playing a role, as dependent on such variables as age, gender, and the kind of role to be played (see Sachs, 1983).

In the present paper a study is reported on the ability of entering roles related to experiencing basic emotions, such as anger, sadness and joy. In the experiment 40 girls and 40 boys took part, distributed in four age groups: 4, 6, 8 and 10. They were asked to play roles of "being angry" "being sad" and "being happy", as illustrated by pictures showing appropriate facial expressions as well as by narratives which differed in stimuli for a given emotion, as well as in whether the protagonist's behavior was intentional or not. Children's performances, both verbal and nonverbal were videotaped.

The analysis of videotaped data was concerned with such aspects as the ability to recognize and adequately name emotions as presented in drawings of human facial expressions, the ability to imitate (mimic) them, and finally, the ability to play a character supposed to experience an emotional state. The latter is a complex behavior, in which several factors can be singled out, such as mimics, prosodic features of utterances, pragmatic acts performed, etc.

The results show that the ability to identify and name an emotion depends on its kind: anger was the easiest to recognize and name. The ability to imitate an expression of emotion clearly increased between the age of 4 and 6, and later decreased: between 8 and 10, which may be due to the growing capacity of the child to mask his or her emotions. As far as role playing is concerned, the easiest character to play was that of "an angry man", whereas the role of "a sad man" appeared to be the hardest to perform. Girls were found to have better control of prosodic characteristics of expressing emotions than boys. With role playing, pragmatic acts appeared, typical for each of the three kinds of emotions studied.

The talk will be illustrated by examples of videorecordings.

THURSDAY   Session C: PRAGMATICS
9:30 - 10:00   Room C

SMALL WORDS IN CHILD'S RUSSIAN

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The aim of this paper is to study the ontogenetic history of small words (Shcherba) in Russian. Until now, there has been only a few investigations in the field, and almost none based on the spoken speech. The problem of identifying small words as parts of speech (interjections, particles or conjunctions) is important to the grammatic and pragmatic analysis of modern Russian. Previous accounts of particles, interjections and conjunctions in the child's Russian have not been based upon observation of their use in a conversational context (Gvozdev, 1961) or were simply ignored. Nevertheless, a realistic discourse description needs a justified regard on the use of all sorts of communicative elements.

The theoretic foundations of the study are formed by the work of Ehlich (1986), Karcevski (1984), Shmelev & Protassova (1996), Wierzbicka (1991), and for child speech that of Meng/Schrabback (1994). The focus is made on the situational parameters of communication and on the intonation of utterances. The formal classificational criteria of small words are: distribution of sense, use in the dialogue, alternance of tone, interrelations of speaker and adressee etc. An attempt to register frequency and individual variation of the use of small words in the speech of adult vs. child is also undertaken.

The empirical set of data is collected in the situations of narration, mother-child interactions and adult-child conversations, as well as in some situations of the public speech by adults.

The importance of marking emotions, hesitations, style of speech, colourness and self irony by the adequate and displaced use of organizational markers even in a small child is demonstrated. The limits of the notion of the "small word" still have to be established.

THURSDAY   Session C: PRAGMATICS
10:00 - 10:30   Room C

INTERACTIONAL PROCESSES
IN THE ORIGINS OF THE EXPLAINING CAPACITY

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A certain number of authors have observed that young children, in their third year and even as early as the second half of their second year, are able to provide explanations/justifications for their interlocutor though they have not yet acquired specific linguistic means to express them. The emergence of this behaviour can be followed particularly well in the case of justifications of directives and oppositions, communicative acts that the child performs early on and already in pre-linguistic communication.

In this paper some of the interactional processes that might underlie the acquisition of this capacity are explored in analyses of the longitudinal data of four mother-child dyads observed in their natural setting between the ages of 1;3 to 3 years (the specific age range for each child depends on his/her language development). The language of the dyads is French.

Two functional aspects are particularly looked into :
1) the mother's use of explanations/justifications during the whole developmental period studied (before and after the children start providing explanations themselves);
2) comparative analyses of each of the partners' behaviour in situations where the other partner provides/does not provide an explanation for a given communicative act (e.g. a request, a refusal) and of the conversational sequences occurring in each of the two cases.

Preliminary results show that mothers provide explanations of directives and of oppositions (e.g. refusals and protests of child's behaviour) well before the child starts providing them consistently. Furthermore, it appears that child-produced communicative acts (like directives and oppositions) are treated differentially by the mother depending on whether they are justified or not, and this from the time justifications start to appear in the child's production. A reciprocal differential treatment by the child seems to occur only in the later period and appears to be more content dependent.

THURSDAY   Session A: SEMANTICS
11:00 - 11:30   Room A

THE DEVELOPMENT OF DIFFERENT TYPES OF CONDITIONALS IN GREEK: IMPLICATIONS FOR ISSUES OF ACQUISITION AND TYPOLOGY

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Building upon previous indications that certain types of conditionals appear later than others, this investigation aims to describe more systematically as wall as explain the order with which different conditional constructions appear throughout childhood. In contrast to most previous analyses of child speech which have defined conditional types on the basis of formal and semantic criteria alone, it considers pragmatic criteria to be of the utmost importance in line with recent treatments of conditionals that find a logical semantic analysis inadequate. The acquisition evidence is finally discussed in light of theorizing on a universal typology of conditionals.

The data is drawn from the speech produced by and directed to Greek children. It is, more specifically, based upon a cross-sectional sample of 60 subjects aged 3;0 to 12;0 as well as longitudinal observation of two other children covering the age range of 1;0 to 4;6. Formal analyses of the attested conditionals include the type of conjunction employed and the order of the protasis and apodosis clause. Semantic criteria take into account the degree of hypotheticality as well as the sort of temporal reference involved, thus differentiating between categories such as future predictive, indefinite generalization and counterfactual. The pragmatic analysis takes into account the type of speech act performed by the conditional utterance as well as the type of relationship holding the two clauses of the construction together. In the latter case, it differentiates conditionals which encode a causal relationship between two situations of the

ideas (epistemic ones), discourse (speech-act ones) and text structure (metalinguistic ones).

Most important among our results seems the predominance and precedence of the content conditionals, whose earliest and most characteristic function is to regulate behavior, usually warning about the undesirable consequences of actions. Speech-act conditionals appear somewhat later and in notably lower frequency, in spite of their high frequency in child-directed speech. Though also used as regulators of behavior, they usually allow the fulfillment of desires. Epistemic conditionals are rare and quite late while metalinguistic ones are absent altogether. The apparent course of development is discussed in terms of claims regarding what may be the prototypical conditional as well as the critical similarities and differences among conditional types. It is also related to hypotheses concerning semantic change, which see meanings based 'in the external world as being prior to more abstract ones based in the internal world of ideas and feelings and even more so to those based in the linguistic exchange itself.

THURSDAY   Session A: SEMANTICS
11:30 - 12:00   Room A

NEGATION AND POLARITY: CROSSROADS IN DEVELOPMENT

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This paper presents an investigation of negative polarity items (NPIs) in child language. NPIs, such as *any* and *yet*, have a complex and restricted distribution, and are only allowed in specific licensing environments.

The study to be presented explores the question of how children come to define the correct licensing environments for NPIs. This question is especially interesting in the light of the presumed absence of negative evidence: if children are not informed about where certain words and expressions can*not* appear, how will they learn which restrictions apply to NPIs? Conservative acquisition, with restrictions from the onset, would seem to be a safe route, since a retreat from overly general use of NPIs would be problematic, given the absence of direct negative evidence.

Findings will be presented from an investigation of Dutch spontaneous speech, using a corpus of spoken speech from one- to six-year-olds, and a corpus of written speech

frequently: the modal verb *hoeven (need/have to)* and the adverb *meer (anymore)*. As soon as these NPIs appear, they are restricted, but children's way of licensing deviates from adult speech. In the beginning, licensing is correct, but tightly limited to classical negation. Later on, errors also occur, which seem to represent a too broad definition of the licensing conditions. From the age of about six, the errors disappear and the variety of grammatical licensers gradually expands.

On the basis of these findings it will be argued that children's early use of NPIs is neither strictly conservative, nor overly general. Children appear to follow a route which lies between these extremes: NPIs in their speech are restricted from the onset, but according to an intermediate, deviant licensing system, which is closely associated with the adult way of licensing. This relieves the burden on negative evidence, since progress from this point towards the adult system of licensing does not depend on negative evidence to unlearn overgeneralizations, but instead involves fine-tuning of the properties of licensing environments. The data indicate that this process goes hand in hand with children's developing knowledge to express various forms of negation. In both the development of NPI-licensing and of negation, the acquisition order is from strong to weaker negative expressions, as defined in formal semantic terms (Zwarts, 1995).

THURSDAY   Session A: SEMANTICS
12:00 - 12:30   Room A

THE DEVELOPMENT OF INTERPERSONAL LANGUAGE: LEARNING TO USE INTERPERSONAL VERBS AS LINGUISTIC TOOLS

Wolanda Werkman
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A large cross-sectional (ages 6-16) study on the acquisition of an inferential process mediated by interpersonal verbs is reported. Interpersonal verbs describe social events or states. The former is achieved by verbs of action (e.g., kiss, help) the latter by verbs of state (e.g., like, hate). A distinctive feature of action and state verbs is the systematic manner in which they mediate inferences about who 'caused' or initiated an event described in a Subject-verb-Object sentence. The systematic finding with adults is that sentences with action verbs systematically mediate inferences to the sentence subject and with state verbs to the sentence object as the initiator or 'cause' of the event described in the sentence. This has been referred to as the 'causality implicit in interpersonal verbs', implicit because the systematic difference in the mediation of this

inference pattern is not one that is consciously accessed. The current cross-sectional study addresses the question of how and why this inference pattern develops.

The findings from this study are based on the Linguistic Category Model (cf. Semin & Fiedler, 1991), which is a taxonomic model of interpersonal language influenced in part by Vygotsky's tool mediated action approach, and are interpreted within the framework of verb development theories. State verbs differ from the broader category of action verbs with regard to the syntactical structure of the sentences in which they are used and with regard to the social-communicative context in which they occur and therefore hold an exceptional position in verb learning in general and in interpersonal verb learning in particular. Based on this we expected that children would master the implicit causality of these verbs at a later stage than the implicit causality of action verbs.

In order to test these hypotheses, three tasks were administered to 750 Dutch children on elementary and secondary schools. The youngest subjects were often unable to give a reason for an interpersonal state, which can be seen as a partial confirmation of our hypothesis regarding the relatively late mastery of these verbs. These refusals decreased with age. The pattern of the reasons that were given, differed substantially from the conventional adult pattern (subject reasons for interpersonal actions and object reasons for interpersonal states). An unconventional (something else than a subject reason for an action verb, etc.) reason is, of course not 'wrong' and children give much more of these unconventional reasons than adults do. It isn't until adolescence that the conventional pattern is displayed. Why does this pattern become dominant? It seems that the unconventional reasons children give are more situation specific and the conventional reasons more dispositional. We therefore suspect that we may have to integrate a cultural perspective into the notion of implicit causality to explain the phenomenon of implicit causality.

References

Semin, G. R. & Fiedler, K. (1991). The linguistic category model, its bases, applications and range. *European Review of Social Psychology*, 2:1-30.

THURSDAY   Session B: MORPHOLOGY
11:00 - 11:30   Room B

ACQUISITION OF POSSESSIVE RELATIONS BY A RUSSIAN CHILD

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Our study is based on tape-recording of speech production by 5 children, as well as on parental diaries of 3 children.

Our main goals consisted in (1) finding out in what order children acquire different semantic variations of possessive relations and (2) in determining the order in which they master formal means of their expression.

The variety of types of possessive relationships is pretty large. They are: possession in the literal sense of the word (my toy), partitive relations (my hand), kinship relationships, which are reversible (my mommy-my daughter), resemblance (the boy has my eyes), agent-object relationships (my fortress, i.e. the one I've built), etc.

In the child's speech production the first of the above mentioned types is far more common than the others, then comes the second one, the third being rather rare. Other types of possessivity, though fairly recurrent in the input, do not occur in the young child's speech production.

Russian has the following basic means of expressing possessivity: possessive adjectives: mamina kniga (mommy's book), possessive pronouns: moja kniga (my book), the reflexive -possessive pronouns: svoja kniga, the genitive case of nouns: kniga mamy (the book of mommy), constructions like 'U mamy kniga' (Mommy has a book).

Children make their first attempts to express possessive relations during the single-word utterance period. They use 'frozen forms', outwardly identical with the Nominative: a little girl, pointing at her mother's jacket, utters "MAMA" (mommy) [ ]. A very limited lexicon including mostly kinterms stimulate the child to name things through their relationship to a person. At he final stage of single-word utterances period children begin to use 'MAMI' (mommy's). A boy answering a question 'Whose boy are you' was recorded saying "BABI" (Granny's) [ ]. Other children make use of such forms at the stage of two-word utterances, like "MAMI DOM" (mommy's house) which a child is saying pointing at a brick house built 6y his mother [1.09,20]. There is constant word order; the subject preceding the object. The appearance of forms like "MAMI" marks a very important stage in the child's grammatical evolution: the basic

opposition of two case forms: direct case v. oblique case-came into being. We believe that the appearance of the child-specific form "MAMI", that later disappears completely, can be looked upon as evidence for self-organizing processes taking place at the stage of transition from protomorphology to premorphology.

Forms like "MAMIN" (mommy's), usually appear during the two-word utterance period. Such an early acquisition of this particular pattern can be accounted for morphotactic and morphosemantic transparence of the pattern.

When children acquire multi-word utterances, most of them start using personal pronouns and corresponding possessives.

At the age of 22-24 months most children have got at their disposal a considerable variation of forms to express possessivity, which enable them to choose the one best suited in the actual given circumstances.

The pronoun SVOJ (one's own) is generally acquired at a latter stage. Though the age of a particular child's acquisition of the possessive forms may vary from child to child, the order in which they are acquired is practically the same.

THURSDAY   Session B: MORPHOLOGY
11:30 - 12:00   Room B

THE USE OF DIMINUTIVES IN UKRAINIAN MOTHER-CHILD SPEECH

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This study examines diminutive use by three-year old Ukrainian-speaking children and their mothers. Diminutives are carriers of emotional information and can be defined as special forms of words derived with the aid of diminutive affixes which add additional meanings of smallness and tenderness to words. Diminutives produced by four mother-child pairs were selected from recordings of spontaneous home interactions. It has been shown that the child acquiring a language with a complex morphological system (such as Ukrainian) has an awareness of and a sensitivity to the meaning of separate grammatical elements and attends to more than entire words in speech addressed to him/her. By age three, such a child can understand and form the basic functions of most grammatical morphemes of the language s/he is acquiring (Gvozdev, 1929; Popova, 1958; Bogoyavlenskij, 1973; McWhinney, 1975; RukeDravina, 1976; Berman,

1981; Smoczynska, 1985; Chumak-Horbatsch, 1994). Prior research dealing with morphological capabilities of young children acquiring Polish, Russian, Hungarian, Hebrew and Latvian are reviewed. A description of the frequency, formation, meanings, degrees, structure, functions, context and categorization of diminutives produced by the conversation partners is provided. The diminutive performance of the Ukrainian children is examined in light of morphological descriptions of children's ability to extract patterns and formulate rules from their linguistic experience (Berko, 1958; Ansidfeld & Tucker, 1973; McWhinney, 1975; Ruke-Dravina, 1976; Derwing & Baker, 1976; Berman, 1981; Kim et al, 1994). Ukrainian diminutivization emerges as a significant part of mother-child conversation and an active and highly productive means of creating new words. The syntactic category mostly diminutivized by mothers and children was the noun. Among the diminutivized nouns there was a large number of lexicalized diminutives, nouns which have a diminutive suffix but which have, over time lost all diminutive meaning and are widely used as regular nouns. Two kinds of children's diminutive use in the conversational context are identified. Adjacent diminutives followed mothers turns and were repetitions of her diminutive formations while non adjacent diminutives were initiated by the child and were not related to mothers prior turn. A small number of diminutivized "family" nouns was noted in speech of all four mother-child pairs. Diminutivized-Ukrainianized English words, where an English word was given Ukrainian pronunciation and a Ukrainian diminutive suffix were noted. Dimimutive forms were produced by both conversation partners during smooth, problem-free interaction. However during oppositional episodes, characterized by disagreement, mothers made use of regular forms. The study concludes with the identification of morphological rules which underlie Ukrainian childrens' diminutive formations.

THURSDAY   Session B: MORPHOLOGY
12:00 - 12:30   Room B

THE ACQUISITION OF GRAMMATICAL MORPHOLOGY IN BULGARIAN SPECIFIC LANGUAGE IMPAIRMENT: PATTERNS AND STRATEGIES

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Despite the heterogeneity of the group, children with Specific Language Impairment (SLI) show as a common characteristic a significant deficit in their use of grammatical morphemes. Different hypotheses (phonological, semantic, cognitive) attempted to

explain the acquisition and use of morphology by children, normal and language impaired.

This study examines the acquisition and use of the derivational and inflectional morphology (of eight categories: nouns, adjectives, numerals, verbs, adverbs, pronouns, particles and prepositions). The data from 15 SLI children (aged 4;2 - 6;8) are compared with those from 10 normal children (aged 2;6 - 6;8) and with longitudinal data from IV. Georgov (1905). Samples are collected under three experimental conditions: comprehension, elicited production and imitation. The stimuli are presented at the phrase level.

The specificity of the language system of Bulgarian is manifested by predominant analytism in the morphology; a rich verbal system (with synthetic inflections and many simultaneous changes in the initial, medial and final position of the verb); free and mobile accent; very strong word order rules in the phrase permitting flexible word order in the sentence; hevy functional verb load and verb-centrism in the sentence (Bulgarian is a typical pro-drop language). This specificity requires the acquisition of rich paradigms with many changes and exeptions and awareness of local markers during perception and production.

The data indicated that numerous errors appeared within all examined categories. Most errors have been observed in verbs, nouns, particles and prepositions in the areas of the markers' semantics, their and the control of their use. Difficulties in the acquisition of morphological forms have influenced directly the acquisition of phrase structure rules and of transformational rules within the phrase. Structure-specific difficulties at the structural level co-occurred with atypical algorithms at the processing level.

THURSDAY   Session C: INPUT
11:00 - 11:30   Room C

THREE INTERACTIONAL PORTRAITS
FROM MOHAWK, CREE, AND WHITE CANADIAN CULTURES

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Introduction:

A number of studies have identified the nature of caregiver input to children and the role of input in the acquisition of language focusing mainly on white middle-class families. Language socialization studies have also been carried out that examined the nature of caregiver-child interaction in a variety of cultural contexts (Crago, 1988; Heath, 1983; Ochs, 1988; Schieffelin, 1990). These studies highlighted the fact that verbal interaction between parents and children plays a role of varying importance across cultures. However, these cross-cultural studies are based on broad ethnographic descriptions not on the type of quantitative analyses employed in research on the white middle-class.

Recently, Hough-Eyamie (1993) conducted a quantitative reanalysis of Crago's (1988), data on caregiver input in the Inuit culture using the Inventory of Communicative Acts-Abridged (INCA-A), a shortened and modified version of the system developed by Ninio and Wheeler (1984). Using this coding scheme Hough-Eyamie (1993) was able to identify both similarities and differences between Inuit and white middle-class caregivers in the quantity of communicative interaction, the range of communicative activities, and the intents expressed by the caregivers. Further, a number of generational differences were observed among the Inuit caregivers. However, comparability of the two groups was compromised in this study since the Inuit data were collected in a naturalistic setting but the white middle-class data were obtained in a laboratory setting in a semi-structured free play situation (Pan, Imbens-Bailey, Winner, & Snow, 1995). Also, the caregivers in the two cultural groups varied on educational and occupational characteristics.

The purpose of the present study was twofold: to provide more closely matched data sets and to extend the analysis to include another Native group with a different history of acculturation.

Method:

The subjects are three families; one white working-class, one Inuit, and one Mohawk. The primary caregiver in each family is the mother. All of the mothers are in their early 20s, have completed high school, and are full-time caregivers. The three children are 20 month old, first born daughters and the fathers are all employed as labourers; a carpenter, a furnace repairman, and an automotive repairman, respectively.

One hour and forty-five minute samples of naturalistic mother-child interaction were collected for each family. The videotapes were transcribed (translated when necessary) following the CHAT conventions of the CHILDES database system (Mac Whinney & Snow, 1990). Using the INCA-A, the mothers' communicative turns were coded on two levels: the interchange, the purpose of the interaction; and the speech act, the intent expressed in the utterance. The transcripts were analyzed using CLAN computer programs of CHILDES.

Findings:

Preliminary analyses have identified a core set of communicative interchanges and speech acts used by all three caregivers. However, the data also revealed some culturally specific differences. The findings of this study will be compared to studies of white middle-class caregiver input and issues of universal and culturally specific forms of caregiver input will be addressed The issues of class-culture distinction and acculturation processes will also be discussed.

References

Crago, M. (1988). Cultural context in communicative interaction of young Inuit children. Unpublished doctoral dissertation. McGill University, Montreal.

Heath, S. B. (1983). Ways with words: Language life and work in communities and classrooms. Cambridge, UK: Cambridge University Press.

Hough-Eyamie, W. (1993). A microanalytic analysis of caregiver-child interaction: An Inuit example. Unpublished Master's thesis. McGill University, Montreal

Mac Whinney, B. & Snow, C. E. (1990). The child language data exchange system: An update. Journal of Child Language, 17, 457-472.

Ninio, A. & Wheeler, P. (1984). A manual for classifying verbal communicative acts in mother-infant interaction. In Working Papers in developmental psychology No.1. Jerusalem: The Martin and Vivian Levin Centre, Hebrew University. Reprinted in Transcript Analysis,1986, 3,1-82.

Ochs, E. (1988). Language acquisition and language socialization in a Samon village. Cambridge: Cambridge University Press.

Pan, B. A , Imbens-Bailey, A., Winner, K., & Snow, C. E. (1995). Communicative intents expressed by parents in interaction with young children. Unpublished manuscript. Harvard University Graduate School of Education.

Schieffelin, B. B. (1990). children. Give and take of everyday life: Language socialization of Kaluki children. Cambridge: Cambridge University Press.

THURSDAY   Session C: INPUT
11:30 - 12:00   Room C

TEASING IN THE LINGUISTIC SOCIALIZATION OF GYPSY CHILDREN IN HUNGARY

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Teasing has been demonstrated to be a potentially important, culture-specific means of linguistic socialization in different linguistic communities and social groups (e.g. Heath, 1983; Schieffelin, 1986; Eisenberg, 1986). Use of teasing, and variation in its structural and pragmatic characteristics could be related to factors such as typical ways of achieving social control, beliefs about child rearing, and types of speech genres used in the community. Accordingly, teasing may serve a variety of pragmatic ends (e.g. social play and control of the behavior of children). Teasing has also been found to be a source of language learning and affective socialization (Miller, 1986).

Teasing is extremely widespread in traditional Gypsy communities, in child-adult interaction as well as among adults, and it is used in a variety of situations and genres. According to earlier anthropological and linguistic research (Lee-Kaprow, 1982; Reger and Gleason, 1991), teasing may be a source of amusement, a means of scaffolding narratives, a technique of 1 memorization in these nonliterate communities, as well as a means of verbal manipulation and social control in these basically, egalitarian societies. Furthermore, teasing is an extremely important communicative means in inter-ethnic communication as a way of manipulating the gazhe ('non-Gypsies') from a socially more vulnerable position, in order to reach different goals.

Structural and pragmatic characteristics of patterns of teasing children as well as some aspects of children's acquisition of these patterns have been examined in speech addressed to 3 preverbal Gypsy children (on the basis of audio-and video records made between 0;3 and 0;9 months) as well as in the records of a girl, whose language development has been followed longitudinally (first at monthly, and later at bimonthly intervals from 0;9 to 3;6).

Teasing proved to be widespread from the earliest age in the speech addressed to Gypsy babies, and it seemed to be practiced by everybody in the extended family surrounding them. A specific feature of teasing babies in Gypsy communities is the direct modeling of teasing sequences, an adult or order child providing adequate responses on the baby's behalf. Range of topics and structural and programmatic characteristics of teasing as well as changes in these patterns occurring as a function of the child's age and growing linguistics abilities are analyzed. As to the acquisition of this discourse skill, Gypsy children seem to recognize and use very early some of the specific "contextualization cues" necessary for the identification of the underlying intention of teasing behind the surface form.

Eisenberg, A. (1986): Teasing: verbal play in two Mexicano homes. In: Schieffelin, B.B., Ochs, E.: Language socialization across cultures. Cambridge University Press.

Heath, S.B. (1983): Ways with words: language, life and work in communities and classrooms. Cambridge University Press.

Lee-Karpow, M. (1982): Resisting respectability: Gypsies in Sarragosa. Urban Anthropology, 3-4.

Miller, P. (1986). Teasing as language socialization and verbal play .in a white working-class community. In: Schieffelin, B.B., Ochs, E.: Language socialization across cultures. Cambridge University Press, 1986.

Reger, Z., and Gleason, J.B. (1991): Romani child directed speech and children's language among Gypsies in Hungary. Language in Society, Vol. 20; no. 4.

Schieffelin, B.B. (1986). Teasing and shaming in Kaluli children's interactions. In: Schieffelin, B.B., Ochs, E.: Language socialization across cultures. Cambridge University Press, 1986.

A CROSS-CULTURAL INVESTIGATION OF PARENTAL NARRATIVE INPUT TO CHILDREN AT A RANGE OF AGES

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Anat Stavans
Bar Ilan University
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This paper reports the findings of a cross-cultural study designed to investigate and describe the nature of parental narrative input directed to children of different ages. Extensive cross-cultural research has already been undertaken on the strategies and approaches children adopt as they acquire the cognitively complex skills required to relate a piece of extended discourse. This research is designed to complement this previous detailed investigation of the development of narrative skills in children (Berman & Slobin 1994) through a detailed examination of the kind of input children receive from their parents.

Parents of children in the age groups three, four, five and seven were asked to relate a story to their child from a wordless picture book in their homes. Stories were collected from parents who were native-speakers of Hebrew and English who told the story to their child in their native languages. The stories were recorded and then analysed in order to delineate the complexity of the form of the parents' language in terms of vocabulary, sentence structure, and discourse structure. In addition, the interactive nature of the parent / child language was investigated for such features as expansions, comprehension checks, personal digressions and questioning techniques.

The study aims to identify features of parental language which help the child to acquire complex narrative skills, and suggests ways in which professionals (such as teachers and speech pathologists) can help parents to increase the kind of language input their children receive. The implications for educational programs in preschool centers, kindergartens and primary schools are discussed.

Berman, R. & D. Slobin (1994). Relating events in narrative. Lawrence Erlbaum Publishers : London.

THURSDAY   Session A: BILINGUALISM
16:30 - 17:00   Room A

BILINGUAL ACQUISITION: ONE SYSTEM OR TWO?

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In studies on early, simultaneous acquisition of two languages, a question that frequently arises is to what extent children mix or separate the two codes. Volterra and Taeschner (1978, 1983) propose a gradual process. During an initial stage, the child has only one lexical system including non-equivalent words from both languages. During the second stage, the child possesses txuo lexical systems but one syntactic system, whereas, when the third stage is reached, the two linguistic systems are well differentiated according to the interactional context.

A study on Spanish-Catalan familiar bilinguals (Vila and Cortes, 1991) confirms this process of lexical acquisition, although the stage of morphological and syntactic mixing seems to be extremely short.

Meisel (1989, 1994), on the contrary, does not find any evidence in favour of the second stage proposed by Volterra and Taeschner. In his opinion the two grammatical systems are differentiated by early bilinguals as soon as grammatical elements are used.

Our investigation reflects the acquisition of Basque and Spanish by two children, growing up in bilingual families. The process has been videotaped every two week, starting at the age of 1, 07, until 3, 06, with the BUSDE - HEGEHJ research projects, carried out in cooperation by the Universities of Hamburg and the Basque Country, respectively.

Although Basque and Spanish coexist geographically, their lexical and grammatical systems are neatly different. Spanish is an Indo-European Romance language, whereas Basque is an occidental Pre-Indoeuropean language, notably different from all its neighbours.

Our study argues for a differentiation of the two grammatical systems the children are acquiring right from the start; i.e., since grammatical, elements are first used. Two phenomena will be observed. On one hand, the acquisition of Noun Phrases in both languages: left determination in Spanish and right determination in Basque; genitive on the right in Spanish and on the left in Basque, etc. On the other hand, the

acquisition of grammatical case markings, particularly interesting, since Basque is a triple agreement ergative language.

THURSDAY   Session A:BILINGUALISM
17:00 - 17:30   Room A

SECOND LANGUAGE ACQUISITION IN IRISH-MEDIUM PLAYGROUPS: EVALUATING EARLY IMMERSION IN IRELAND

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Early immersion in Irish-medium playgroups has become an increasingly popular choice for parents in recent years, and more than 2,500 three- to four-year-old children now participate in such voluntary *naionrai* all over the country. Most are located in English speaking urban areas, but a small number are in Irish-speaking districts on the western sea-board, where they are helping to offset the decline in intergenerational language transmission.

This study collected data from all of the major players in this early immersion model, including parents (n=1807, 73% of sample), playgroup leaders (n=162, 98%), assistants (n=79, 98%), Advisors/Inspectors' reports on each playgroup (n=167) and detailed tests of 226 three-year-old children on their Irish comprehension, production and imitation, their general cognitive development (tested in their native language, usually English) and ratings of each child on specific skills by his/her playgroup leader.

Results indicate the children's significant L2 learning after a year, and the effects of their naionra attendance on their use of Irish at home. Linking the children's results with the other data sources such as the parents' and playgroup leaders' questionnaires allows the development of a profile of the most significant factors which contribute to successful L2 learning. The longer-term impact of such early immersion on the Irish language revitalisation movement is also considered.

DO EARLY SIMULTANEOUS BILINGUALS (AT AGE 3;0) HAVE A FOREIGN ACCENT IN ONE OR BOTH OF THEIR LANGUAGES?

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For the current study, inventories of phonemes and allophones in the two languages of young bilinguals were examined to determine if the children could be said to "speak with a foreign accent" in one or both of their languages. Since the term "accent" is ambiguous as to which level of linguistic description is implicated -supersegmental, segmental, articulatory gesture, or all three- several possibilities were explored. Observations of the phonetic development of 11 Spanish- and English-learning bilinguals were made in conjunction with observations of the same phenomena in 20 monolingual children, 13 English and 7 Spanish. In this way, we could distinguish normal child processes from language-specific interference.

The 31 children were given the Hodson Articulation test in English and/or Spanish between 34 and 39 months. The tests provide a standard word-set with opportunities to pronounce all the phonemes of the languages in all positions (where relevant). Average performance and 95% confidence intervals on the language-specific phonetic elements were determined for the 3 groups. Individual bilingual children's production was then referenced to the monolingual group means.

For the most part the 11 bilinguals' mastery of language-specific elements was comparable to monolinguals', with enough such elements produced by all children for patterns of difference to emerge. Several candidates for "intrusions" were disqualified as interference errors in that they were seen to occur with comparable frequency in the monolinguals: aspirating stops in the wrong environments, deleting glides and final consonants, substituting schwa for other vowels or vice versa. For other markers of accent, using an English [r] in Spanish or vice versa and failing to spirantize intervocalic voiced stops in Spanish, only 6 or 7% occurrence was observed but this was sometimes seen as sufficient to cause the "impression of foreign accent." Two young bilinguals who failed to aspirate voiceless stops in English were seen to illustrate the relative nature of the judgement of foreign accent. The two children differed in their general level of phonetic competence: for the child with an extensive inventory of language-specific elements, it is argued that her failure to aspirate constitutes "speaking with an accent," while for the other child, whose inventory consisted

principally of universal syllable types, unmarked for a specific language, it is argued that failure to aspirate is not a mark of accent, but of immaturity.

The relation of accent phenomena to the balance of proficiency in the child's two languages is discussed as well as how likely the patterns are to change in the children's fourth year.

THURSDAY   Session B: COGNITION
16:30 - 17:00   Room B

THE LINGUISTIC ENCODING OF SPATIAL RELATIONS
IN SCANDINAVIAN CHILD LANGUAGE DEVELOPMENT

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Reykjavik, Iceland   Gothenburg, Sweden

The present study analyses the acquisition of adverbs, verb particles and prepositional phrases for the linguistic encoding of spatial relations. Data were drawn from longitudinal case studies (covering the 2nd and 3rd year of life) and from a picture story task (administered to children ranging from 5 to 15 years of age) across the Scandinavian languages Danish, Icelandic and Swedish. These three languages show a typological variation which make them a "natural laboratory" for the cross-linguistic study of language acquisition.

It is observed that, already at an early stage of development, the structure of acquisition shows language specific effects. Particles are acquired earlier in Danish than in Swedish. Prepositional phrases are clearly preferred to adverbs or particles in Icelandic acquisition but not in Swedish or Danish. On the basis of these observations, it is argued that those features of the input that are salient from a perceptual and information processing point of view filter through into the child's process of constructing a language, irrespective of whether these features are cross-linguistically valid or typical of an individual language. In the latter case, they give rise to a language particular profile of the child's early grammatical development.

ENGLISH-SPEAKING CHILDREN'S USE OF
LOCATIVE / CONTACT AND CAUSATIVE ALTERNATIONS

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Hong Kong

Richard Ingham   Gabriella King   Christian Schelleter   Indra Sinka
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Recent discussion of 'grammatical impairment' in English-speaking SLI children has concentrated on morphosyntactic categories such as tense, agreement, and determiner. Indeed the claim has been made that the effect of SLI on the grammar is restricted to 'feature-related' categories such as these. However, other important areas of the grammar remain relatively unexplored in SLI. In particular, verb argument structure, an area of significant interest for language acquisition, has had little attention. Lexical verbs play a central role in syntactic structure. Each lexical verb in English optionally or obligatorily takes one or more internal arguments. Children have to learn the syntactic complementation of individual verbs and classes of verbs. If the hypothesis that SLI children are grammatically impaired is to be fully explored, their control of grammatically relevant lexical structure, and the possibility that they manifest verb-related syntactic deficits, require exploration. Our research (which runs in parallel with a companion project on Dutch) addresses SLI children's knowledge of verb transitivity in verb alternations. Two classes of alternations are involved. Causative verbs have either agent as subject, as in the boy is bouncing the ball, or (in the inchoative version) theme as subject, as in the ball is bouncing. Locative / contact verbs either have theme as direct object (he scraped the spade along the fence) or goal as direct object (he scraped the fence with the spade).

SUBJECT DESCRIPTION

In all 42 SLIs were tested in the study, ranging in age from 5;1 to 8;9. Subjects come from schools for language-impaired children, and language units in mainstream schools. Both settings operate similar screening procedures, involving hearing, non-verbal IQ and neurological and psychological status, and current speech / language status. Subjects likely to be unintelligible to adults unfamiliar with them were excluded. Standardised measures of language comprehension were obtained for each child, along with scores on the British Picture Vocabulary Scales and the Renfrew

Word Finding Test. These last two procedures are used to match the SLI children with normal children.

PROCEDURES

Two procedures were used to elicit language to serve as the basis for the analysis of morphosyntactic categories. Children watched a cartoon film and listened to a spoken narrative of the film. The film was then re-shown in segments and the children were invited to re-tell the story. Target items here were verbs marked for regular past tense. In addition a 'free conversation' sequence was recorded, permitting contexts for third person singular agreement as well as past tense items. For the lexical verb alternations a series of filmed events was constructed. For example, for the verb bounce, one scene (the 'inchoative') shows a ball bouncing across a hard surface, with no agent in the frame. The second version (the 'causative') shows a boy bouncing the ball. The target verb was primed for each scene.

RESULTS

Analysis of a subset of 10 matched pairs of subjects reveals SLI children's expected problems with tense and agreement as compared with their normal matches: half the SLI group omitted 50% or more of obligatory morphemes. In responses to the verb video, the SLI group showed less sensitivity in their choice of argument structure for contrasting presentations of verb scenes. Neither group was able to use the alternations for locative/contact verbs frequently. Overall performance on the causative/inchoative alternation was better-- the two groups between them show evidence of alternations in 40% of cases. Comparison of the groups indicates that a higher proportion of the LN children use the alternation in 75% or more of causative/inchoative verbs. The implications of these findings for the characterisation of the grammatical effect of SLI are discussed.

THURSDAY   Session B: COGNITION
17:30 - 18:00   Room B

ACQUISITION OF SPATIAL EXPRESSION IN EUROPEAN PORTUGUESE CHILDREN'S NARRATIVES

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Inserted in the theoretical framing presented for Space by Talmy (1975, 1983, 1985), and for Language Acquisition by Bennan and Slobin (1992, 1994) our study focuses

the acquisition of spatial expression in narratives produced by Portuguese children, confronted with a control adult group, in a situation of absence of mutual situational knowledge.

Narrative productions were elicited with two picture stories: *Horse Story* and *Cat Story* as described since 1982 in Hickmann's studies and developed, among others, by Hendriks (1993), Smoczynska (1992) and Batoreo (1994).

The subjects are 30 monolingual European Portuguese children (half boys and half girls) of five, seven and ten years of age, ten children in each age group. The children were tested in a kindergarten and a primary school in the centre of Lisbon. All the narratives are transcribed and analysed in the CHILDES System (Mac Whinney, 1991 and Sokolov & Snow, 1994).

Referring to space in discourse is a complex task, as all children acquiring a given language have to learn how to perform it in order to become competent native speakers. This learning process comprises different factors of both cognitive and linguistic character as, e.g. how to use general rules governing the structural well-formedness of a story (as proposed in story grammars) and how to establish connections among linguistic devices within the discourse in order to mark the opposition between new and given information.

Studies developed in this area show that studying space expression in European Portuguese implies analyzing many age-dependent and language-dependent factors: age dependent implications in the acquisition of general discourse rules and age- and language-dependent development in the acquisition of the appropriate devices to provide the particular language expression to these discourse rules. The space expression is also story-dependent - i.e. takes into consideration the dynamic /static character of the events used in it - and protagonist-dependent, especially when the protagonist roles are strongly clear-cut (*Horse Story*).

Our study shows how these factors develop and change along the process of the Language Acquisition in European Portuguese.

THURSDAY   Session C: MORPHOLOGY
16:30 - 17:00   Room C

ACQUISITION OF LITHUANIAN VERB MORPHOLOGY
(AS COMPARED TO THAT OF SLAVIC LANGUAGES)

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Jagiellonian University   Warsaw University
Krakow, Poland   Warsaw, Poland

The paper is based on the data of two Lithuanian children (Rûta, Egle) whose speech is currently being recorded. These are the very first child speech data on this language.

The emergence of particular verbal categories, such as tense, mood, person and number will be traced, as well as the forming of conjugation patterns. Similarities and differences in acquisition of verbal morphology by Lithuanian and Slavic (Russian and Polish) children will be investigated, in relation to differences and similarities in respective verbal systems.

The comparison of Baltic and Slavic language acquisition can constitute an interesting test case. Both groups of IE. languages are strongly related typologically (and genetically: they form the Balto-Slavic group), yet there are systematic differences. In general Lithuanian verbal system seems to be more uniform and simple than that of Russian or Polish and therefore more easy to learn. A number of facts contributes to this effect:
* Lithuanian verbal morphology is uniformly synthetic (no analytic forms such as future imperfective in Polish or Russian);
* the imperfective vs. perfective distinction, marked by prefixes, is lexical rather than grammatical: aspect & tense do not form a close relationship as in the two Slavic languages;
* no number distinction in the 3rd person;
* no gender agreement;
* conjugation paradigms (sets of endings) are simpler and more regular than those of the Slavic languages studied;
* stem alternations are more limited than in Slavic languages.

Two features that point at relatively greater complexity of the Lithuanian verbal system in relation to Slavic ones (frequentative past and a rich subsystem of participles) does not have much impact on early child language, as both phenomena hardly ever appear in parental speech.

In general the prediction of easy acquisition is fulfilled. Children learn verbal morphology quickly and without many problems. However, two interesting phenomena appear which seem typical of Lithuanian child language.

One is a tendency to use syllable fillers. Due to the generally synthetic nature of Lithuanian, in many cases long, multisyllabic words are built, e.g. musimausiu 1.Sg. Fut. PERF.PRE-REFL-put+on-FUT:SG:1 'I will put it on myself' is realized as amamausiu (Rûta 2;0); atsikelei PREREFL-get+up-PAST:SG:2 'you got up' is realized as akikelei (Rûta 2;1). With the other child, Egle, this appears a generalized strategy to build words. The phenomenon seems to be related to phonological problems and on-line production limitations rather than to morphology as such.

The other interesting fact concerns morpheme order related to the use of negative and reflexive markers. The negative morpheme ne- is a prefix rather than a free particle (like in Polish or Russian), the reflexive morpheme si is something between a clitic (like the Polish sie) and a bound suffix (like the Russian -sja,). In non-prefixed and non-negative forms it appears at the end, sometimes shortened to -s, e.g. maudo-si wash-PRES:3-REFL 's/he/they wash(es) her/himself/ /them-selves', maudy-ti-s wash-INF-REFL 'to wash oneself'. In prefixed forms it gets inserted between prefix and stem (see the examples above). In negated forms it gets inserted between ne- and stem (ne-si-maudo).

Children do not show any errors with the placement of the reflexive morpheme with prefixes, but they appear to have problems with negation: instead of ne-si-maudo they tend to say *ne-maudo-si (cf. external negation in other languages).

THURSDAY   Session C: COGNITION
17:00 - 17:30   Room C

MASTERING ITALIAN CLITIC PRONOUNS:
LINGUISTIC AND CONTEXTUAL FACTORS

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In this paper we explore the acquisition of Italian clitic pronouns attempting to clarify how the learning process is influenced by two main different linguistic functions these pronominal forms can play in Italian: (1) A full pronominal function for deictic and anaphoric reference. (2) A primarily morphological function whereby clitics act as agreement markers on the verb. Extralinguistic contextual factors are also involved in the deictic use of clitics. We focus on a subset of 3rd person singular clitics: two forms marked for gender (masculine / feminine: *lo, la*), and a single reflexive form unmarked for gender (si).

First, we briefly review our findings from previous research on the acquisition of Italian pronouns in different contexts (spontaneous production and experimental settings). These results show that both in production and comprehension the acquisition of pronominal forms is a slow learning process which appears to continue even after five years of age. Until approximately three - four years of age children's pronominal system appears to be simplified compared to the adult one: only a small number of singular clitic forms are used productively, mostly with a pronominal deictic function. By far the most frequent clitics are the 3rd person singular *lo / la* forms, whereas reflexives are much less frequent. A similar distribution is also found in adult language addressed to children.

Second, we will report the preliminary results of experiments we are currently undertaking in order to examine children's learning of the three most frequently produced clitic forms (*lo, la* and reflexive *si*). We investigate children's knowledge of the pronominal and morphological functions these form can play, examining children's skills in comprehension and elicited production tasks. Subjects are 60 children divided in three age groups (three, four and five years olds). All children are examined individually by the same experimenter in the kindergarten they attend. Using a task adapted from Mc Kee (1992), children are presented filmed stimuli along with a set of

32 test sentences plus 16 filler sentences, and are requested to match the stimuli and the sentences. The same materials are used to elicit children's verbal descriptions. This research design permits the evaluation of alternative hypotheses concerning children developing skills in the use of pronominal clitics, and of different methodologies that can be used to explore children's language abilities.

THURSDAY   Session C: MORPHOLOGY
17:30 - 18:00   Room C

IS TWO STAGE MODEL OF EARLY GRAMMATICAL DEVELOPMENT UNIVERSAL? A STUDY ON MORPHOLOGICAL AGREEMENT IN THE DEVELOPMENT OF L1 TURKISH

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Language acquisition studies in English have shown that children's early utterances lack inflections. Brown (1973) marks a stage in child language without grammatical morphemes where only semantic relations are given. Radford (1990) states that the early language of English-speaking children lack determiners, possessives, pronouns, tense agreement and complementisers. The lexical acquisition forms the earliest structures in child language and functional categories such as determiners, inflection and complementiser are acquired late in English. Radford considers these functional categories as syntactic and claims that these syntactic categories mature only after basic syntactic structures are acquired. Radford (1990: 290) further claims that *"This two-stage model of early grammatical development will be applicable not just to english but to other languages as well"*.

Radford's claim that 'the two stage model of early grammatical development' is universal needs to be tested in other languages. This study investigates the early utterances of Turkish -speaking children. Turkish is chosen for several reason. Turkish is a morphologically where grammatical relations are expressed by morphemes. Previous research on the acquisition of inflections in Turkish have shown that the acquisition of inflections starts as early as 1;3 (Ekmekci, 1982) and that early utterances consist of stressed and suffixed inflections (Aksu-Koc and Slobin, 1985). Aksu-Koc and Slobin also states that "Turkish children rely on inflections rather than word order for the identification of grammatical relations" (Ibid: 856). To determine whether Turkish-speaking children are capable of expressing grammatical relations using morphology at early ages, the spontaneous speeches of ten children are recorded

The data is collected longitudinally starting at 18 months. Each child is followed for six months until they reach 24 months. The data is analyzed in terms of both the emergence and the development of the following:

-subject-verb agreement in simple sentences

- subject-verb agreement in subordinate clauses

- possessive-genitive agreement

-object-postposition agreement

References

Aksu-Koc, A. and Slobin, D.I. (1985). "The acquisition of Turkish" in D. I. Slobin (ed). *The crosslinguistic Study of Language Acquisition*. Vol 1. Hillsdale, N.J. Lawrence Erlbaum Associates.

Brown, R. (1973). *A First Language: the early stages*. London: George Allen and Unwin.

Ekmekci, O. (1982). "Acquisition of verbal inflections in Turkish". *Journal of Human Sciences*, Vol. 1, N. 2, 227-241.

Radford, A. (1990). *Syntactic theory and the Acquisition of English Syntax*. Oxford: Basil Blackwell.

FRIDAY   Session A: LANGUAGE DISORDERS
9:00 - 9:30   Room A

MORPHOSYNTACTIC PROBLEMS IN DUTCH-SPEAKING CHILDREN WITH PSYCHIATRIC DISTURBANCE

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Previous studies of children with psychiatric disturbance have indicated that a high percentage have problems with language, but not so often in the area of morphosyntax. Forty children were studied to establish to what extent problems with morphosyntax occur and to what extent these problems are further related to problems in semantics and pragmatics (Mills & Scheper, 1995). 30% had problems in grammaticality and these problems rarely occurred in isolation, but usually in combination with pragmatic and/or semantic problems.

Interestingly children with psychiatric disturbance frequently omit obligatory structural elements in their sentences, like the main verb and the subject, whereas their MLU is within the normal range. They also make more subject-verb agreement errors compared to their age-matched peers. In a secondary quantitative analysis the types of morphosyntactic errors from the children with psychiatric disturbance were compared with 10 SLI children (Mills & Scheper, 1995).

The SLI children produce significantly shorter utterances. They also make more errors in the word order and morphology, especially in verbal agreement. The morphosyntactic problems of children with both a language problem and psychiatric disturbance seem to be of a different order than the morphosyntactic problems of SLI children.

One central topic of SLI research concerns the question of how SLI children acquire functional categories, like flexionmorphemes, auxiliaries, copula and determiners. The acquisition of functional categories seems to be a problem for these children whereas the acquisition of lexical categories, like main verb, nouns, etc. does not (for example Clahsen, 1992; Gopnik, 1990).

The aim of this paper is to investigate to what extent children with psychiatric disturbance have problems in the acquisition of functional and lexical categories and to what extent these problems are related to problems in semantics and pragmatics.

For the qualitative morphosyntactic analysis 20 Dutch-speaking children with psychiatric disturbance are considered in the age of 4 to 10 years. These children will be compared with data of 20 normal Dutch-speaking children of the same chronological age (Roelofs, 1994) and 10 SLI children (Pulles & Witten, 1992). Systematic collection of spontaneous language production occurred in a video-taped discourse situation with an adult.

Linguistic characteristics found in SLI children could suppose a disturbance in the autonomous linguistic system. This theory presumes autonomous modules within the morphosyntactic module of the linguistic system. The problems with functional categories in SLI children seem to confirm the existence of specific autonomous modules within the morphosyntactic module. The specific question addressed to children with psychiatric disturbance is: Are the morphosyntactic problems to be explained in terms of selective deficits within the morphosyntactic module, as is supposed in SLI children, or are other language areas involved, such as pragmatics?

THE ACQUISITION OF NARRATIVE SKILLS:
A COMPARISON BETWEEN PSYCHIATRICALLY DISTURBED
AND NORMALLY DEVELOPING CHILDREN

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From the literature on psychiatrically disturbed children, it is known that more than half of these children have language problems (Prizant e.a., 1990). Studies on the language skills of 40 children with psychiatric disturbance in the Netherlands (Mills & Scheper, 1994; Mills & Tso, 1991) signpost these findings and establish that most children had severe semantic (55%) and pragmatic problems (73%), whereas 33% also had problems in the area of morphosyntax.

Because previous investigations indicated that a high percentage of psychiatrically disturbed children had semantic- pragmatic problems, we were interested in the acquisition of narrative skills of these children. Telling a story makes a great demand on the cognitive-linguistic capacities of the child since he has to verbalize a thematically coherent structure of hierarchically and sequentially ordered events, whilst integrating the perspectives of the storyteller, the listener and the main characters of the story (Berman & Slobin, 1994).

In a pilotstudy of 12 children who were both psychiatrically disturbed and language-disordered (Blankenstijn & Scheper, 1994) we found that these children had far more severe narrative problems than the 12 normally developing children of the same age in expressing the overall plot. In particular the end of the story was omitted or insufficiently related. Since all the children had a language disorder, it cannot be said that psychiatric disturbance alone accounts for the problems with the plot. Possibly the morphosyntactic abilities of the child are an important factor (Burger, 1995).

We will present data on the acquisition of narrative skills of 75 Dutch-speaking children with psychiatric disturbance in comparison to 75 normally developing children between the ages of 4 to 9 years (Blankenstijn, Scheper and Roelofs, in prep.). The narratives have been elicited using the picturebook 'Frog, where are you?' (Mayer, 1969). The narrative abilities in both populations in terms of verbalizing the overall plot-structure were analyzed according to the Causal Network Model, designed by Trabasso and Rodkin (1994). The central topics selected within this model are the

ability to take perspective and the ability to relate the story episodes into a Goal-Plan Hierarchy.

We predict that the psychiatrically disturbed population shows in general more problems in taking perspective and in verbalizing the overall plotline of the Frog-story than the normal population. The psychiatrically disturbed children will also be subdivided into children with no or some language problems (on the basis of an analysis of a conversation) in different language areas. The relationship between the area of a language problem and narrative ability will thus also be explored.

Literature:

Berman, R.A. and D.I. Slobin (1994) (eds) *Relating Events in a Narrative, A Crosslinguistic Developmental Study* Lawrence Erlbaum Ass, Hillsdale, NY, UK.

Blankenstijn C. J. K. and A.R. Scheper (1994) Narrative skills in psychiatrically disturbed children, In: *Network Bulletin on First Language Acquisition* Utrecht, The Netherlands.

Burger E. (1995) *Narrative abilities of in psychiatrically disturbed children* MA thesis, Institute of General Linguistics, University of Amsterdam.

Mayer M. (1969) *Frog, where are you ?*, Dial Press, New York.

Mills A.E. and A.R. Scheper (1994) Morphosyntactic problems in children with psychiatric disturbance, *Amsterdam Series in Child Language Development*, Institute of General Linguistics, University of Amsterdam, The Netherlands.

Mills A.E. and Y.H. ,Tso (1991) Language development in psychiatrically disturbed children, In: P. Mjaavtn, Hagvet B. and Feilberg J. (eds) *Proceedings of the Second European Symposium of Child Language Disorders* Trondheim, Norway.

Prizant B. M. e.a. (1990) Communication disorders and emotional/behavioral disorders in children and adolescents, In *Journal of Speech and Hearing Disorders* 55:179-192.

Trabasso T. and H. Rodkin (1994) Knowledge of goal/plans: a conceptual basis for narrating 'Frog where are you?', In: Berman R. A. and Slobin D. I.1994 (eds) *Relating Events in a Narrative, A Crosslinguistic Developmental Study*. Lawrence Erlbaum Ass, Hillsdale, NY, UK.

FRIDAY   Session B: NARRATIVE
9:00 - 9:30   Room B

VENEZUELAN PRELITERATE CHILDREN'S NARRATIVE DEVELOPMENT

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Narratives have a central role in children's construction of reality. A multidimensional approach to the study of narrative development can reveal sources of diversity in speakers' narrative competence. In this paper, variation in the developing narrative abilities of Venezuelan children between the ages of 3 and 7 is examined. Research in narrative development has mainly studied English-speaking children and little is known about how Spanish-speakers develop narrative skills. Furthermore, most developmental research studies narratives produced by middle class children. My focus in this study is on variation across age and social class in Venezuelan (monolingual Spanish-speaking) children's narratives.

The data, collected in Caracas-Venezuela, is cross-sectional and it consists of, personal narratives produced in interviews with 36 children of three age groups (4-, 5- and 6-year-olds) who belong to the two extremes of the social spectrum (upper Middle class and low SES). The oral personal narratives thus collected were analyzed from a functional perspective. The categories of analysis were grouped along three dimensions: ideational, *interpersonal and textual* (Halliday, 1985). The assumption behind this is that it is necessary to take a multidimensional view to be able to capture narrative development.

Results show that the most marked developmental changes in the narratives of Venezuelan children between the ages of 3 and 7 take place in the *interpersonal* dimension (evaluation) and in the *textual* dimension (particularly in the number of structural components and cohesive devices). These findings are consistent with similar research on English-speaking children's narratives (Miller & Sperry, 1988, Peterson & McCabe, 1983). Cross-cultural research (Rodino et al., 1991) suggests that the narratives of Latino children in the U. S. lack thematic unity. However, the findings of this study indicate that Venezuelan children (regardless of social class) tend to produce narratives that revolve around one main topic. The social class differences in the children's renditions of personal experience are the most observable in the *interpersonal* dimension. The lower SES children use considerably fewer (explicit) evaluative devices. The differences in the other categories are attenuated, suggesting that evaluation is a key factor in narrative development. The findings of this study indicate that narrative development follows different paths to reach differing endpoints.

These differences should be taken into account when children enter the system of formal instruction, particularly in relation to literacy teaching. Thus, the conclusions drawn from this study can have educational and methodological implications.

REFERENCES:

Halliday, M. A. K.(1985). Introduction to Functional Grammar: London: Edward Arnold.

Miller, P. & Sperry, L.(1988). Early talk about the past: the origins of conversational stories of personal experience. In Journal of Child Language, 15 pp.293-315.

Peterson, C. & McCabe, A.(1983). Developmental Psycholinguistics New York: Plenum Press.

Rodino, A., Gimbert, G., Perez, C. & McCabe, A. (1991). Getting your point across: Contrastive sequencing in low-income African-American and Latino children's personal narratives. Paper presented at the 16th Annual Conference on Language development, Boston University, October 1991.

FRIDAY   Session B: NARRATIVE
9:30 - 10:00   Room B

THE ROLE OF VERBS IN THE ACQUISITION OF NARRATIVE COMPETENCE

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This paper will investigate the role played by the acquisition of verbs in French children's narrations. Part of learning to construct a narrative text is learning to encode distinctions in the complex relationships between agents, patients, causes, and consequences. Much developmental work has argued that development in syntax is a reflection of the child's ability to manipulate such semantic relationships and encode them appropriately following the conventions of his/her language (Berman 1992, Slobin 1991). This study will look specifically at the relationship between verbs and the syntactic means used for encoding complex events.

Narrative texts (based on *Frog, Where are you?*, Mayer 1969) were collected from monolingual French speakers using the procedures outlined in Berman and Slobin (1994). Twelve subjects in each of the following age groups were recorded: 5-, 7-, 10/11-year olds and adults. The story relates the adventures of a little boy and his dog

during a search for a runaway frog. For the work presented four episodes will be studied in detail:

Episode Boy - Mole   The boy looks into a hole on the ground. A mole comes out of the hole and bites the boy on the nose.

Episode Boy - Own   The boys looks into a hole in a tree. He disturbs an owl who comes flying out of the hole. The boy falls to the ground.

Episode Dog - Bees   The dog knocks a beehive off of a tree. The bees swarm after him.

Episode Boy - Deer   The boys climbs up on a rock behind which is a deer. The boy gets onto the deer's antlers. The deer runs to the edge of a cliff and tips the boy down into a pond.

The verbs used in encoding these episodes are classified based initially on the predicate type categories developed in Berman (1992), Foley and Van Valin (1984), Vendler (1967). Particular attention will be given to the relationship between the verbs used and syntactic structure in which they are used - in particular passive constructions and relative clauses. It will be argued that using syntax to encode complex events is in part a question of grown in vocabulary.

FRIDAY   Session A: LANGUAGE DISORDERS
11:15 - 11:45   Room A

GRAMMATICAL SLI IN CHILDREN:
A MODULAR LANGUAGE DEFICIT OR A PROCESSING IMPAIRMENT?

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The underlying nature and cause of specific language impairment (SLI) in children is a highly contentious issue. The focus of one line of this debate is whether SLI in children is due to a processing disorder (albeit subtle) or whether it is a "modular language" deficit. This paper addresses this issue using evidence from three sets of investigations into a sub-group of 12 Grammatical SLI children. The paper provides insight into the underlying nature of Grammatical SLI, and contributes to the modularity debate.

I have proposed that Grammatical SLI can be accounted for in terms of a deficit with structure-dependent relationships, that is, a Representational Deficit for Dependent Relationships (RDDR). If the RDDR is a modular language deficit then impairments should only be found in modular language abilities. However, if the RDDR is a general processing deficit then impairments should be found across a range of tasks in different domains. The questions addressed were: is the deficit 1) a modular language deficit?, 2) a non-modular language deficit?, 3) A "domain neutral" deficit which affects linguistic and non-linguistic processing? Three set of investigations into 1) modular language; 2) non-modular language and 3) non-linguistic visual abilities were undertaken to test the extent of the deficit. Importantly, all the tasks require forming a representation, which depends on a structural relationship. 1) The assignment of intrasentential reference to pronouns and anaphors within the linguistic framework of Binding Theory was investigated to see if the children's deficit extended to other dependent syntactic (modular language) relationships. 2) The use of pronominal reference in a narrative discourse *(Frog where are you?)* which depends on a representation based on structural knowledge of narratives and pragmatic inference assessed language abilities outside the language module. 3) A computer generated visual learning task, requiring an abstract structure dependent representation of the stimuli, investigated if their deficit was a subtle processing deficit affecting non-linguistic abilities. The performance of the 12 SLI children (aged 9:3-12:10) was compared with 36 language ability (LA) matched controls (aged 5:4-8:9) on all tasks. 12 chronological age (CA) matched control children were also tested on the visual non-linguistic task. The SLI children were found to be significantly impaired in ruling out inappropriate coreference for pronouns and anaphors when syntactic knowledge was required. However, the SLI children's use of pronominals and other referential expressions in the narrative showed an appropriate dependence on the linguistic function of the referent *(introducing; re-introducing; maintaining reference)* and pragmatic knowledge and their performance did not differ from the LA control children. In the visual learning task, the SLI children were found to have a similar or better level of performance as measured by correct responses and reaction times than both the LA controls and the GA matched control children.

The evidence does not support a general processing account of SLI. In contrast, the data provide strong empirical evidence for the modular nature of Grammatical SLI in children and the modularity of aspects of language. The implications for language acquisition will be discussed.

THE STRUCTURE OF NOUN PHRASES IN DUTCH SLI-CHILDREN

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Many studies on the grammatical deficits of Specifically Language Impaired (henceforth: SLI-) children focus on problems in the area of the morpho-syntax of verbs, such as verbal inflectional morphology (Tense and Subj-V-agreement markings) and verb placement (e.g. Verb-second phenomena in Germanic languages). Difficulties in other syntactic domains have received less attention. This paper deals with one such domain: the noun phrase. Survey of the literature shows that SLI-children especially have problems with determiners, for example with articles, (personal) pronouns, possessives. Among the reported difficulties are determiner omissions, agreement errors (determiner-noun agreement) and case errors (omission of genitive case markings).

In this paper, I will try to give an interpretation of these observations by relating them to features of so-called functional projections. Within the model of Principles and Parameters Theory the old idea of a fundamental opposition between closed class and open class lexical items has been reintroduced and fitted into the framework of X-bar Theory. Both functional (closed class) and lexical (open class) elements are thought to be heads of their own syntactic projections. So for instance the article, belonging to the functional category Det, is considered the head of a projection DP, the former Noun Phrase. Possessors, though semantically the subject of NP, surface in the Spec of DP, where they receive genitive case, via Spec-Head agreement with D.

Although the study of functional projections is firmly established in normal language development research (see for an overview e. g. Lust, Suner & Whitman 1994), application of fruitful insights from this field into the study of SLI has been undertaken only recently. One important issue raised in this context will be further investigated here, viz. what is the evidence for a functional projection DP in SLI-language, on the basis of longitudinal data from young Dutch SLI-children. As a starting point for my investigation, I will follow a suggestion made by Rice (1994), namely that Spec-Head agreement in functional projections is impaired in SLI.

The following questions will be addressed:

1. If it is true that Spec-head agreement is impaired, a difference should be found between SLI subjects and both CA- and MLU-controls in the use of elements which count as evidence for the Spec-Head agreement relation (for example genitive -s marked on prenominal possessors). The prediction is that these elements do not occur in SLI-data, or only to a limited extent.

2. Assuming that agreement of Spec and Head of DP is a diagnostic for the presence of a functional projection DP in SLI-language, impaired Spec-Head agreement gives rise to the following two possibilities:
   a. There is evidence for a functional projection DP in SLI-language, which must be found 1. in the presence of elements of category Det, e. g. articles, pronouns, demonstratives, and 2. in the presence of agreement: there must be consistent agreement between Det-elements and the noun.
   b. There is no evidence for a functional projection DP in SLI-language, since there is no evidence for Det: maybe Det-like elements are found, and their occurrence has to be accounted for, but there is no Det+N agreement.

In this paper, I use longitudinal data from 12 Dutch SLI-pre-schoolers based on spontaneous conversations with mother or father (cf. Van Balkom 1991). The children were video-taped every two months for a period of 1.5 years. Mean age: 2;8 years at the beginning of the study. At that time, the children showed a delay in language production of 10 to 20 months, and a delay in language comprehension of 0 to 9 months, as measured by standard tests. For comparison with normal language development samples of spontaneous language from both CA- and MLU-matched controls are used.

With the results in this paper, I aim to make a contribution to the ongoing "continuity" debate, particularly where this is relevant for describing delay in SLI.

REFERENCES

Van Balkom, H. (1991). *The Communication of Language Impaired Children*. Diss. Un. of Amsterdam. Amsterdam/Lisse: Swets & Zeitlinger.

Lust, B., M. Suñer & J. Whitman (1994). *Syntactic theory and first language acquisition: cross-linguistic perspectives*. Two volumes, Hillsdale, New Jersey: Lawrence Erlbaum associates.

Rice, M. L. (1994). Grammatical Categories of Children with Specific Language Impairments'. In: R. V. Watkins & M.L. Rice (eds) *Language Inpairments in children*, Baltimore: P.H. Brooks, 69-89.

LINGUISTIC AND PERCEPTUAL RISK FACTORS IN EARLY STUTTERING

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Currently, research to ascertain the underlying nature of stuttering in children has begun to focus on the possible contributions of the child's level of linguistic functioning and reactions to their own speech production to the development and persistence of stuttering symptoms. This study asks the following questions:

1. Do the speech and language abilities of children recently identified as stutterers (N=15) differ from those of an age-matched sample children who do not stutter? There is significant disagreement in the literature about whether or not stuttering children are less linguistically proficient than are fluent children. A major problem with past work is the use of broad measures and heterogeneous samples of older stuttering children. This study supplements normed assessment measures with measures capable of capturing subclinical language function in a narrower cohort of children whose stuttering is within three months of onset.

2. What are the linguistic attributes of dysfluent words and utterances at the onset of stuttering? This research continues programmatic investigation of the contributions of sentence planning demands, and lexical and syntactic complexity to the loci of stuttered moments in children who stutter.

3. Do children who show early recovery from stuttering differ in their speech and language skills from those children whose stuttering persists? The first year of stuttering is frequently associated with a high rate of spontaneous recovery. We contrast the linguistic profiles of children who are still stuttering one year post-onset with those of children who no longer stutter.

4. Do children whose stuttering persists demonstrate distinctive patterns of self-monitoring when compared to children who do not stutter or who recover? Self-monitoring refers to the process by which a speaker monitors his/her own speech output auditorily; most young children do not self-monitor well, as evidenced by lack of response to perturbed auditory feedback of, their own speech. There is growing interest in the possibility that the struggle and effortful repetition behaviors associated with stuttering reflect an atypical sensitivity and maladaptive response of some young children to their early speech efforts. This study evaluates the effects of delayed auditory feedback (DAF) on young , stuttering and fluent children's speech.

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FRIDAY   Session B: NARRATIVE
11:15 - 11:45   Room B

REFERENT TRACKING IN GREEK AND GERMAN CHILDREN'S NARRATIVES

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The native speaker's competence to create coherent texts takes many years to develop. One type of devices essential for achieving textual coherence are referring expressions, such as indefinite vs. definite noun phrases and pronouns. Their adequacy in a given context depends on the accessibility of referents to the hearer. The paper will examine the linguistic means used for subsequent mentioning of referents having previously been established in discourse. Special emphasis will be given to the expression of the sentence topic by pronouns or zero in narrative texts of monolingual six-year-old children learning the null-subject language Modern Greek and the non-null-subject language German, respectively, in comparison to adults. Furthermore, the types of evidence the hearer has to rely on for identifying the referent intended by the immature and mature speakers will be studied. The data were elicited in Athens, Greece, and Cologne, Germany, using the storybook without words *Frog, where are you?* by Mercer Mayer (1969).

FRIDAY   Session B: NARRATIVE
11:45 - 12:15   Room B

THE ROLE OF PREVERBS IN GEORGIAN CHILD LANGUAGE

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We base our research on the statement of Berman and Slobin (1994) that genetic study of narratives reveals the interaction between form and function. We consider it as the main aspect of language development.

Georgian preverbs due to their multifunctional nature and their role in expressing space and temporal relations provide the optimal conditions for such a research.

There are some factor which determine the accessibility of a grammar form, namely: acoustis salience, frequency, transparent form-function mapping, regularity of paradigm etc. Georgian preverbs, in our opinion, may be characterized only by the first two factors. Thus, some difficulties in their acquisition are expected.

Georgian preverbs have 4 functions: They may denote: I) direction of action, 2) orientation of action (towards or away from the speaker), 3) accomplishment of action, 4) formation of new verbs. Three of them express locative and temporal relations, but there is no formal basis for differentiation of aspect and direction, e.g. da-xata-have painted, da-varda-fell down. Perhaps this is the reason of relatively late appearance of aspectual distinction in the narrations. According to the materials of the "Frog Story" only 30 % of Georgian preschoolers use different aspects while describing durative and completed actions. But this distinction is realized by using of different tenses; past for completed action and present for durative action. If there is an alternative to express direction or accomplishment of movement, preschoolers choose the first one. In school age 70 % of children use different aspects describing duration and completed actions.

The function of orientation: towards and from the speaker (mo-, mi-) is specific and nonambiguous. Projecting themselves at the definite point of a picture (on the bank of pond, on the surface of earth etc.) narrators easily use these preverbs, often together with different preverbs. E.g. bitci cha-mo-varda- the boy fell down towards the speaker.

The comparative analysis of using preverbs in narratives by preschool and school children reveals the dynamics of preverb functions:

      1) directional function of preverbs is primarily expressed in child language, namely; ga-out, da-down, a-up, she-into, oha-down and into.

      2) expression of orientational function increases with age gradually

      3) expression of aspectual function of preverbs increases from the age of 4 to the age of 10 rapidly and significantly.

FRIDAY   Session B: NARRATIVE
12:15 - 12:45   Room B

PERSPECTIVE TAKING IN "FROG STORIES" BY SWEDISH MONOLINGUAL AND TURKISH BILINGUAL CHILDREN AND ADULTS

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Perspective taking on events and characters in narratives is an important part of childrens' language acquisition. Languages provide for more than one way to encode an event which enables the speaker to tell a story from different perspectives. Interesting differences in encoding perspectives across different languages have also been reported in various studies (Berman & Slobin, 1994). Bilingual speakers' encoding of perspectives in their two languages might supply further data on cross linguistic and maturational effects on children's perspective taking.

The narration of a picture series involves both local and global perspectives. Local aspects are related to an event or episode in one individual picture, while global aspects relate episodes with respect to fictional time, establishment of main characters, etc. across some or all of the pictures. Studies of monolingual children have found an age dependent gradual development of the ability to encode both local and global perspectives (Strömqvist & Day, 1993) in telling a story.

The present study investigates the use of global and local perspectives in bilingual children's retelling of Mercer Mayer's "Frog where are you?" in Turkish and in Swedish. The children are 5 to 6 years old and are attending Swedish mainstream pre-schools. Each child has been recorded at home interacting with her/his mother, in pre-school together with a Swedish speaking teacher, and in a test situation in Turkish and in Swedish. A comparison of the bilingual children's narrative strategies in L1 and L2 is made with a control group of Swedish monolingual children the same age and with a comparable socio-economic background.

FRIDAY   Session C: SYNTAX
11:15 - 11:45   Room C

ACQUISITION OF PREFERRED ARGUMENT STRUCTURE IN VENEZUELAN SPANISH

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This paper aims at validating the hypothesis that Preferred Argument Structure (PAS) found to exist in Venezuelan Spanish spoken by adults also exists in the speech of Venezuelan children. So far no studies of this kind exist for any Romance language, as only Clancy 1995 has analyzed PAS in Korean speaking children.

The data consists of twenty-four narratives obtained by showing to children of three age groups (from 3 to 6 years) a short film known in the linguistic literature as *The pear story* (cf. Chafe 1980). The film, with only background sounds but no words, shows the adventure of a boy who steals a basket of pears (also seen as mangoes by Venezuelan children) to a man who is picking them up in a tree. The narratives were tape-recorded by the children preschool teacher and later transcribed. A corpus of Spanish spoken by adults obtained with the same procedures, is available for comparison. The similarities between the two corpora guarantee the possibility of a fruitful comparative analysis.

The theoretical frame for the analysis of PAS was originally proposed by Du Bois 1987, who sustains that, among several possible arguments configurations, some of them are statistically preferred over others. Du Bois claims that the PAS existing in Sacapultec, a Mayan ergative language, is present in many other languages ergative and non-ergative as well. PAS encompasses a syntactic, semantic and pragmatic dimension.

Methodologically, all clauses in the corpus were coded according to a set of linguistic variables (syntactic role, form, generalizability, animacy, identifiability, activation state) some of which are illustrated in (1) and (2):
(1) a.   /Subject S, full NP, particularizing, animate, non identifiable, inactive/

  Habia una vez *un senor* que estaba robando los mangos ..

(L. E. 3:6)
'Once upon a time there was a man who was stealing the mangoes

b. /Object O, full NP, particularizing, inanimate, identifiable, active/

El ninito se llevo *las peras* ... (A.C. 4:0)
The little child took the pears away ...'

All coded items will be analyzed by means of Goldvarb 2.0 (Rand & Sankoff 1991). The results obtained will show whether i) PAS varies according to the children's age; ii) there are differences attaining PAS characteristics between the two samples (children and adults); and iii) the comparison between the results of this research and those obtained by Clancy 1995 may contribute to attest PAS putative universality.

References*

Du Bois, John W. 1987. The discourse basis of ergativity. *Language* 63.805-55.

Clancy, Patricia. 1995. Preferred Argument Structure and the lexicon: Some evidence from Korean acquisition. Paper read at the Conference on PAS: The next generation. University of California Santa Barbara, May 12-14, 1995.

Chafe, Wallace L. 1980. Introduction. *The pear stories. Cognitive, cultural and linguistic aspects of narrative production*. Norwood, NJ: Ablex.

Rand, David & David Sankoff. 1990. *Goldvarb 2.0*. Montreal: Universite de Montreal.

FRIDAY   Session C: SYNTAX
11:45 - 12:15   Room C

NON-AGENT SUBJECTS IN EARLY CHILD LANGUAGE: A CROSSLINGUISTIC COMPARISON

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This talk examines children's use of morphosyntactic devices for talking about non-agent subjects. Previous work has highlighted the extent to

which languages vary in terms of the options for ordering or deleting arguments of the verb within clauses (see Berman & Slobin, 1994). Although there are scattered reports of children making use of various linguistic devices to construe events from a non-agentive perspective in American children's dialogic speech (see Bowerman, 1990; Budwig, 1990), Berman and Slobin's crosslinguistic comparisons of children older than 3 years suggest that the ability to draw upon such options in monologic discourse continues to undergo development for several years.

This paper aims to further understand aspects of children's developing abilities to draw upon linguistic resources to talk about non-agent subject, in spontaneous discourse. Drawing upon two of the five languages previously compared in Berman & Slobin's crosslinguistic research (1994), this study examines the precursors to monologic perspective taking. The following questions are addressed: 1) what options are available to the children in the various languages? 2) what options do the children make use of? 3) to what extent do the children match the target language they are acquiring in terms of the range of options drawn upon and the functions such forms serve?

The study is based on two sets of spontaneous production data of children acquiring English and German as first languages. The children, ranging in age between 18 and 32 months of age, were videotaped longitudinally from the point of their earliest word combinations while engaging in a variety of semi-naturalistic play activities with their caregivers. All data have been transcribed and entered into the computer for ease of coding based on CHILDES procedures (see MacWhinney, 1991) and all utterances containing a nonagent subject have been isolated and coded according to a multilevel coding scheme that took into account morphosyntactic, semantic, and pragmatic aspects such usage.

The findings focus upon: 1) the relative frequency with which the children employed nonagent subjects in the two languages; 2) the range of construction types the children made use of across development (e.g., voice alternations, impersonal constructions); 3) semantic aspects (e.g., selection of degree of agency); 4) pragmatic factors (i.e., down playing responsibility); and S) discursive factors (i.e. responding to caregiver questions, justifications).

The discussion focuses on similarities and differences in the two groups of children. General cognitive abilities to take a variety of perspectives are compared to language specific solutions. It is argued that cognitive, typological, and interactive factors all play a role in the children's abilities to talk about nonagent subjects.

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References

Berman, R. & Slobin, D. (1994). *Relating events in narrative: A crosslinguistic developmental study*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Bowerman, M. (March, 1990). *When a patient is the subject: Sorting out passives, anticausatives, and middles in the acquisition of English*. Paper presented at the symposium on Voice, University of California, Santa Barbara.

Budwig, N. (1990). The linguistic marking of non-prototypical agency: An exploration into children's use of passives. *Linguistics, 28*, 1221-1252.

MacWhinney, B. (1991). *The CHILDES project: Tools for analyzing talk*. Hillsdale, NJ: Lawrence Erlbaum Associates.

FRIDAY   Session C: SYNTAX
12:15 - 12:45   Room C

SOME NOTES ON THE ACQUISITION OF THE DETERMINER SYSTEM IN ITALIAN

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Among the many questions the acquisition of the determiner system rises there are two which deserve particular attention. The first question is whether it is really true that in early multiword stages articles are unknown to children as studies supporting the pre-functional stage hypothesis generally suggest. Recent work on the acquisition of the determiner system has shown that children pay an early attention to the category article so that, virtually, no prefunctional stage needs be hypothesised as for nominal constituents. The second question is what is or are the specific properties of the determiners that trigger their emergence. Even though many properties of these functors are still unknown, two main sets can be identified: semantic properties and syntactic properties. The former have to do with the kind of reference a nominal expression is associated with (i.e., definite vs indefinite), the latter with the pure formal function of identifying nominal complements

of predicates (i.e., Longobardi (1994), basing on semantically redundant uses of articles among other things, argues that the fundamental function of determiners is expressing argumenthood). Concerning acquisition then, two possible kind of triggers can be hypothesised: semantic triggers and syntactic triggers. The results of some classical studies seem to indicate that the first hypothesis is correct, but more recent work suggests a syntactic function of early articles (see, for instance, Penner's (1992) hypothesis on the fundamental 'expletive' function of early articles in Bernese German).

The present paper is essentially meant to provide a contribution to the hypothesis that no prefunctional stage exists as far as the determiner system is concerned, but in the discussion we will also take into consideration the trigger issue, suggesting that important syntactic properties are present very early. Evidence for the first hypothesis is provided, among other things, by the following facts: a) articles and protoarticles (that is, schwa-like elements in front of nouns as in /e/ *bimbo,* [e] baby) are significantly present in the early multi-word stages; b) omissions tends to occur when NPs are produced in isolation (i.e., answers, one-word utterances) and are significantly low when NPs are governed by lexical items; c) for many articleless employements of nouns pragmatic or textual justifications can be found (i.e, repetitions, naming objects or pictures). In discussing these data we will argue that real or 'unlicensed' omissions turn out significantly reduced so that they could be ascribed to performance factors. As for the syntactic trigger hypothesis, suggestions come from: a) systematic absence of articles in vocatives; b) some semantically redudant uses of articles; c) the late emergence of clear-cut distinctions between definite and indefinite articles; d) the fact that in some SLI children articles are more seriously compromised than functors having more overt semantic contents (i.e, prepositions).

Data are drawn from spontaneous speech productions by 5 Italian children longitudinally followed from 19 months to 36 months and three Italian SLI children.

FRIDAY   Session A: EARLY ACQUISITION
16:45 - 17:15   Room A

PERSONAL PRONOUNS IN EARLY RUSSIAN ACQUISITION

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The present study focuses on the period of first self-references and references to other people. It is based on the longitudinal recordings of spontaneous speech of 8 children aged 1.4 - 3.0 and on several experiments with 6 children of the same age whose native language is Russian.

This research aims at the problems of: a) pronouns' emergence order, b) substitutions and reversals of personal pronouns. The Russian data was compared with that of English-speaking children, described in child language literature (e.g. Budwig 1990, Charney 1980, Chiat 1986). The investigation was concentrated on the problems of agentivity and control, speech roles' designation, etc. Special attention was paid to the role of adults' input, to the influence of mother's speech on the child.

The results show that mother-infant dyads may be subdivided into two types according to their use/lack of personal pronouns in their interaction. Those children, whose mothers often substitute personal names and terms of kinship for personal pronouns, demonstrate a rather late emergence of personal pronouns in their production. The reason is that these children have to generalize from adults' input the idea of designating the speech roles with the help of personal pronouns. On the contrary, if the mother often provokes her child to use personal pronouns by means of stimulation of echo-imitations containing personal pronouns (used from the child's view-point), the child begins to use them rather early. This is caused by the reason that these children have not to generalize the idea of deictic function of pronouns from adults' input. They are provided with it (e.g. first singular personal pronoun towards themselves) by their mothers' speech, they get it as a given form. So, they can use personal pronouns forms before they generalize. Besides, children may differ by their own individual dispositions, too.

The findings suggest that there are two types of features of personal pronouns' acquisition: universal features, common to all children, and

the features characteristic of Russian children, which are provoked by
the peculiarities of Russian language. The later are: pro-drop nature of
Russian language, complex case paradigms, etc. They lead to some
specific features of personal pronouns' acquisition by Russian children,
as for example the relatively late emergence of personal pronouns in
comparison with English children.

The role of personal pronouns' acquisition in the formation of reference to
the person is discussed.

FRIDAY   Session A: EARLY ACQUISITION
17:15 - 17:45   Room A

PREPOSITION INCORPORATION AND EXCORPORATION IN THE
EARLY ACQUISITION OF SPANISH

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Acquisitional studies have proposed that functional words or morphemes
may be introduced in early child language as unanalyzed elements by
rote learning (Bates, Bretherton & Snyder 1988, 279; de Villiers & de
Villiers 1985, 62, Tomasello 1987, R. Clark 1974, MacWhinney 1985),
or in very specific combinations with lexical restrictions (McWhinney
1985).

In this study, evidence is presented to argue that both, formulas (Hickey
1993) and semantically restricted pairings, are involved in the early uses
of Spanish prepositions, on the basis of:
i) early use of lexicalizations incorporating a preposition: *a-ver* (lit. to-see,
'let's see'), *por-favor* (lit. for-favor 'please');
ii) distributional restrictions in terms of prototypical lexical pairings (*en* '
in'+ body part, *con* 'with' + prototypical instrument, *meter* + *a* lit. put.in
+ to, *caer* + *de* 'fall from'), etc.;
iii) children's overextended uses of phrases with these restricted
combinations (*lo metas* al *caito?*, instead of *lo metes* el *carrito?*: 'do you
put it to the car? instead of 'do you put it, the car; *se cayo* del *agua*
instead of *se cayo* al *agua* 'she fell from the water' instead of 'she fell into
the water');

iv) creative word formation on the basis of formulas (*pa'bajalo < pa'bajo instead of bajalo 'put it down') .

It is argued that the productive use of prepositions in early child language would then involve a problem of segmentation and excorporation of formerly unanalyzed segments and disconnection of closely linked pairs (Slobin 1985, MacWhinney 1985).

This is shown to be a process that overtly occurs in dialogical sequences, (particularly in the context of wh- questions, that in Spanish present prepositions in an initial prominent position), whose activation shows up as well in the overanalysis and oversegmentation of Spanish prefixes homonymous with prepositions (*sucho < ensucio 'it got dirty', *pagalo < apagalo 'turn it off', *migo < conmigo 'with me').

My analysis utilizes data from a corpus of 15 hours of spontaneous dialogues between ten dyads of adults and children aged from 1;11-2;9.

E. Bates, I. Bretherton & L. Snyder (1988), *From First words to grammar. Individual differences and dissociable mechanisms,* Cambridge: CUP.

R. Clark, "Performing without competence", Journal of Child Language 1 (1974), pp. 1-10

Hickey, Tina (1993), "Identifying formulas in first language acquisition", *Journal of Child Language* 20. 27-41.

Mac Whinney, Brian, (1985), "Hungarian language acquisition as an exemplification of a general model of grammatical development, in D.I. Slobin, *The crosslinguisite study of language acquisition,* vol. 2. Theoretical Issues, Hilldsdale, N.J.: LEA, 1985, pp. 1069-1157.

Slobin, D.I., "Crosslinguisite evidence for the language making capacity", in D.I. Slobin (ed.), *The crosslinguistic study of language acquisition,* vol. 2, pp. 1157-1256.

Tomasello, M. (1987), "Learning to use prepositions: a case study", *Journal of Child Language* 14.1

Jill G. de Villiers & Peter A. de Villiers, (1985), "The acquisition of English", in D.I. Slobin, *The crosslinguistic study of language acquisition* vol. 1, pp. 27-139, Hilldsdale, N.J.: LEA.

ACQUISITION OF ROMANI - SOME ASPECTS

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This paper aims to present the knowledge of two 6-7 year old Gypsy children (boy from the Netherlands and girl from Bulgaria) about the anaphorisity, topic continuity and the word order in two different Romani dialects: Lovari dialect from the Netherlands and Erli dialect from Bulgaria, in their narratives, created looking at picture story. The data was collected in the natural environment of the children - in Gypsy campsite (in the Netherlands) and in special Gypsy area (in Bulgaria). As a stimulus material for data collection picture story "Frog, were are you?" by M. Mayer (1969) was used. The interviews were recorded, transcribed and analysed.

DIAGNOSTIC METHODS BASED ON THE INTERACTIVE THEORY OF COMMUNICATIVE COMPETENCE

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According to Hymes (1974) the communicative competence is "an ability to perceive and categorize a social situation and to adjust the ways of speaking to this situation". More recent definitions of communicative competence emphasize different aspects of this ability, but all of them indicate, that a competent person knows what to say, to whom, and how to speak. Przetacznik-Gierowska (1993) described this feature saying that "communicative competence is an ability to use language as well efficiently as in keeping with speaker's intentions and listener's

expectations". Efficiency and adjustment to conventional rules of language usage and simultaneously to intentions and expectations competence are emphasized in the interactive theory constructed by Blank (Blank et al. 1978, 1980).

Blank (Blank et al. 1973) has investigated the processes of learning and teaching and found out that they are based on the efficiency of dialogue between mother and child. This efficiency depends on the child's ability to understand mother's or teacher's language. In this theory mother or teacher is seen as a person, who is placing demands on the child that require various cognitive and communicative skills. This cognitive aspect of communicative competence can be investigated by establishing the level of cognitive complexity of utterances (Blank et al. 1978, 1980)

The present paper offers a system for assessing cognitive complexity and the effects of this complexity has on communication with a young child. In order to illustrate the application of the system a set of dialogues between mothers and their 3-year-old daughters was analyzed. Moreover, a test - Preschool Language Assessment Instrument (PLAI) - based on the same theoretical background is presented. PLAI was administered to 10 Polish three-year-olds. These two methods were used to assess children's language skills and to compare results obtained in natural and experimental situation.

The data collected in natural situation show that, by the age of 3, children demonstrate well-developed communicative skills in dialogue, skills that let them to control and influence the flow of information that they receive from their mothers.

The results obtained using PLAI show that majority of preschoolers have sufficient skills at their disposal to benefit from the teaching/learning situation realized through the teacher-child verbal interactions. PLAI gives us a picture of child's language skills, especially of his or her cognitive competence, which makes it possible to structure teaching encounters in a way that they match the child's level of functioning.

REFERENCES:

Blank M., Rose S., Berlin L., 1973. The language of learning: the preschool years. New York: Grune & Straton.
Blank M., Rose S., Berlin L., 1978. Preschool Language Assessment Instrument: The language of learning in practice. The Psychological Corporation Hartcourt Brace Jovanovich, Inc. USA .

Blank M., Franklin E., 1980. Dialogue with preschoolers: A cognitively based system of assessment. Applied Psycholinguistics, 1, 127-150.

Hymes D.H., 1974, On communicative competence, In: J.S. Pride, W. Holmes (eds.), Sociolinguistics. Penguin Model Linguistics Readings.

Przetacznik-Gierowska M., 1993. Swiat dziecka: Aktywnosc - Poznanie - Srodowisko. Krakow: UJ.

FRIDAY   Session B: PRAGMATICS
17:15 - 17:45   Room B

INTERACTION BETWEEN A CHILD WITH SPECIFIC LANGUAGE IMPAIRMENT AND NORMALLY DEVELOPING CHILDREN

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It has been clearly recognised that young children with language impairment are at risk for failure to develop social interactions with their peers (Brinton & Fujiki 1993). There is a close association between children's linguistic competence and their patterns of peer interaction (Hadley & Rice 1991, Rice, Sell & Hadley 1991) and social acceptance.

The children with specific language impairment have a more passive role in conversational interactions than their normally developing age mates. Children with specific language impairment initiated conversation less often and more likely with adults than with normally developing age mates. Their initiations tended to be ignored by their age mates and conversely the children with specific language impairment were less responsive to initiations directed to them. Children with specific language impairment have a greater variety of conversational replies (verbal, nonverbal, paralinguistic expressions) and their verbal responses were shorter. They have problems in repairing conversational breakdowns and difficulties in achieving interpersonal agreement about the shared social contexts.

In my study I am describing the interaction of a child with specific language impairment with normally developing age mates and younger

children. The same child was participating in two different conversations with age mates (two girls and one boy) and two different conversations with younger children (two girls and one boy). The interactions in free play (doll's house) and while looking at a picture book were videotaped in kindergarten. The socially constructed aspects of communication were investigated, communicative acts were coded and the verbal, nonverbal and paralinguistic expressions were described. The descriptions will be discussed.

In addition to the descriptions of the interaction behaviours of the children I am trying to develop a model to describe the interaction between children, which I am going to use in my future research concerning the interaction abilities in different kinds of language disorders.

References

Brinton B. & Fujiki M. Language, social skills, and socioemotional behavior. Language, Speech, and Hearing Services in Schools, 24, 194-198, 1993.

Hadley P.A. & Rice M.L. Conversational responsiveness of speech- and language-impaired preschoolers. JSHR, 34, 1308-1317, 1991.

Rice M.L., Sell M.A. & Hadley P.A. Social interactions of speech- and language-impaired Children. JOSH, 34,1299-1307,1991.

FRIDAY   Session B: PRAGMATICS
17:45 - 18:15   Room B

UNDERSTANDING OF FRENCH MODALS AND METALINGUISTIC ABILITIES: A DEVELOPMENTAL STUDY IN 6-TO 13-YEAR OLD CHILDREN

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The metalinguistic abilities involved in the understanding of French modal verbs were investigated in an experimental situation. This study focuses on two question:

1)- How children aged 6 to 13 understand the meaning of modal sentences?

2)- What and how those children do when asked to comment on their understanding of such sentences?

The modal terms were doit(s)-*must*, devrait(s)-*should*, peut(x)-*may* and pourrait(s)-*might* in relation to their epistemic and deontic meanings (and the assertive verb est-*is* in the epistemic condition). We tested the hypothesis of a mental organisation in such a way that with age, those terms are gradually arranged in the following decreasing order:

> est-doit(s)-devrait(s) peut(x)-pourrait(s), eg. *is must-should-may-might*.

The subjects were asked to choose, between two utterances, the one which corresponded to the higher probability of finding an hidden object (epistemic condition), to the more imperative request (deontic condition). They were also asked to comment upon their responses.

The results were as follows:

- The differentiation between two modals is acquired gradually with age. A linear organisation, such as a three-term mental representation, is built at age 9, without noticeable change beyond that age.

- Children's abilities to comment upon their responses grow with age. From a developmental point of view, an evolution appears in two directions. First, when children have to choose between two sentences, they produce a comment upon those two sentences (whether they are modal or assertive ones). Seondly, when children have to choose between two sentences containing a modal verb, they comment on both sentences; when they have to choose between a modal sentence and an assertive one, they comment on the latter more frequently than on the former.

A such evolution is viewed as progressive metalinguitic abilities in such a way that about 9, children take into account the functioning meanings in the understanding of modal sentences.

FRIDAY   Session C: LEXICON / MORPHOLOGY
16:45 - 17:15   Room C

A MULTIMEDIAL DICTIONARY "FOR CHILDREN", WRITTEN AND ILLUSTRATED "BY CHILDREN"

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Mino Napoletano   Laura Pecchia

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This paper is a general overview of a project for the creation of a multimedial dictionary "for children", written and illustrated by the children themselves, and which can be used by normal as well as disabled users with cognitive, sensorial or motory problems. This work is one of the activities of "Addizionario", a project supported by CNR (Italian National Research Council), aimed at the creation of a hypermedial linguistic laboratory in which the child, either normal or disabled, can face the study of his native language at various levels of difficulty and from different points of view.

Within this framework, a number of tools have been implemented over the past two years, including a computerized prototype of the dictionary, which will represent the core of the hypermedial linguistic laboratory. In order to enlarge this dictionary, currently consisting of about 60 words and relevant images, we asked the children of the fourth and fifth class of the primary and first class of the secondary schools (approximately 400 children) to collaborate personally as authors in the creation of the first nucleus of the dictionary, which will be formed by an approximate 1,000 among the most frequently used words of the Italian language (nouns, verbs and adjectives).

A group of deaf and motory disabled children also participated in the implementation of the special sections of the dictionary, elaborating the simplified definitions, the definitions in LIS (Italian Signed Language) and those in iconic language (Bliss, etc.). The children were requested to define a number of words outside their context, to provide relevant examples and make free associations of the words themselves. They were also asked to represent the given nouns, both concrete and abstract, with a drawing. All the material produced by the child as author, all appropriately classified and including idiosyncratic production

such as personal definitions, associated chains and others, was given a position within the dictionary.

This dictionary, to be distributed for experimentation with a first nucleus of 1,000 words, will be enriched, both from a quantitative and qualitative point of view, by the addition of each child's personal dictionary to the main one. It should be pointed out that the linguistic material added by the child, at the very same moment should receive appropriate encoding (according to the CHAT encoding standards), making it possible for the researcher, psychologist or teacher to analyse the child's production and to monitor the development of his lexical competence.

FRIDAY   Session C: LEXICON / MORPHOLOGY
17:15 - 17:45   Room C

MOOD SELECTION AND THE ACQUISITION OF SPANISH RELATIVE CLAUSES

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Previous work in the acquisition of mood selection in Spanish shows that mastery of the subjunctive does not occur until the age of 6, and that certain uses of subjunctive are more vulnerable to neutralization with indicative and to attrition (Silva Cortalan (1991), Feingold (1994), Blake (1980)). However, if the uses of the subjunctive are teased apart into those that are based on epistemological modality, and those that are based on epistemic modality (Chung and Timberlake (1985)), a different picture emerges. While subjunctive mood used as expression of epistemological modality is acquired late or imperfectly, the uses of the subjunctive that express an epistemic contrast of actuality/non-actuality such as in relative clauses or purpose clauses, are acquired early by Spanish children. This paper presents two studies on children's use of subjunctive in relative clauses, where mood selection signals an epistemic contrast

(1) a una gallina que tenga huevos
    to a hen that has-SUBJ eggs

(2) a una gallina que tiene huevos
    to a hen that has-IND eggs

In Spanish,(l) has an interpretation where there is no presupposition of
existence, while (2) presupposes that indeed a hen exists, and that it
has laid eggs. Twenty children, aged 3 to 6, were prompted to elicit a
subjunctive clause by means of a game. This technique invariably
elicited a subjunctive relative clause such as (1) from adults and six year
old children, but only elicited indicative relatives such as (2) from
younger children. In the second study, in addition to the elicitation task,
children's were assessed by means of a 'theory of mind' task (Wellman
(1990)) to investigate if there was a correlation between the
developmental changes of children's theory of mind and the acquisition of
mood selection. The results indicate a positive correlation between use of
subjunctive in the elicitation task and performance on the theory of mind
task. In tasks in which selection did not involved a semantic contrast,
children as young as 3;2 showed knowledge of subjunctive morphology.
However, such knowledge was not put to use in environments where
mood selection had a semantic value, as with relative clauses, until
children had no passed the 'theory of mind' test. At that point, children
give evidence mastery of the epistemic uses of the subjunctive/indicative
distinction. Naturalistic data reveals that other uses, such as in
complement clauses, are not fully acquired until the age of 6. These
results suggest that cognitive development provides a temporal
framework which organizes the primary linguistic data in the acquisition
of modality.

FRIDAY   Session C: LEXICON / MORPHOLOGY
17:45 - 18:15   Room C

NUMBER OR CASE FIRST? EVIDENCE FROM MODERN GREEK

Anastasia Christofidou
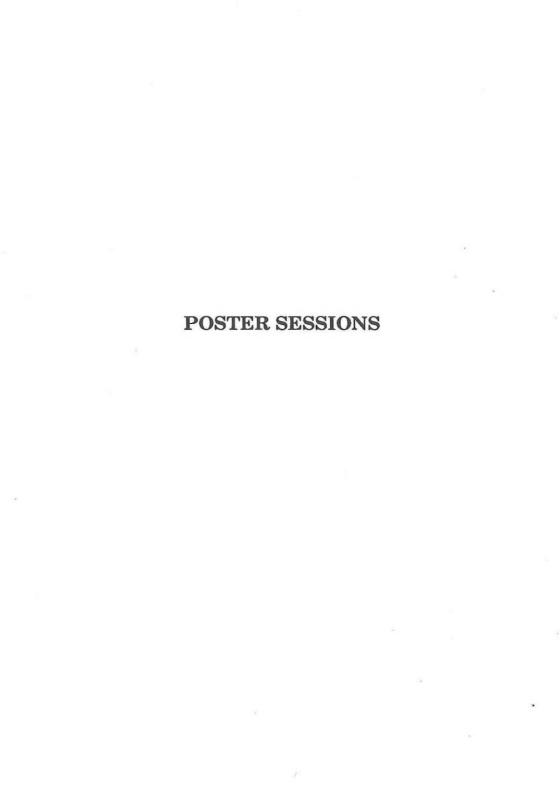University of Crete
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In our paper we intend to discuss the chronological sequence of the
development of case and number marking during the acquisition of
nominal inflection in Modern Greek according to the theory of
Dressler/Karpf (1993) based on natural morphology and more

specifically on the assumption of three stages in the morphological development of child language: premorphology, protomorphology, morphology).

Till today few researchers have concerned themselves with Greek child language, so the available data are not many. However the conclusions drawn from these data by Stephany in her latest work (1995) indicate that consistent marking for singular cases is achieved in general much later ("more than one or two years later") than consistent marking for number.

Nevertheless these results are contradicted by our data from a normally developing boy (till today 16 hours recording and continual observation from 1;8 to 2;5): our subject has already (2;0) mastered the inflectional macroclass (the prototypical class within an inflectional system, Dressler/Thornton 1991) in singular (all cases) but not the inflection of number, since he actually applies the rule for plural marking to only five nouns as we have tested. The fact that he uses more than five nouns in plural form is, to our mind, not of great significance, since he knows these nouns only in plural because of their frequent appearance in that form, e.g. he uses *kerasi-a* PL, (=cherries) but not *kerasi* SG. If we understand Stephany (1995) correctly, her analysis is based on statistics that cannot differentiate between rule application and rote-learning concerning our issue. On the contrary our subject has not only acquired the singular of the stable and productive macroclass of Greek nominal inflection - based mainly on the opposition of the endings s:0 attached to the stem (Seiler 1958) - but he also applies this rule to foreign names like Mickey (o *Miki-s* NOM, tu *Miki*GEN), Donald etc. since 2;1 (i.e. no rote-learning involved).

Although we realize that our data are based on one child[1], we think that there is a second reason to take them under serious consideration (besides the different way of analysing the data): they are strongly supported from the theory of Dressler and Karpf which is, to our mind, the most appropriate one for analysing the development of inflected languages. According to this theory the first stage of inflectional development (in protomorphology) is the acquisition of inflectional macroclasses and primarily in the least marked form i.e. in singular.

1. We expect to collect more data from more subjects.

POSTER SESSIONS

WORD ORDER AND DISLOCATIONS IN EARLY FRENCH PRODUCTIONS

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Analyses of early productions of a French monolingual child (1;9 to 2;6), collected within the CHILDES (Mac Whinney 1975), focused on utterances containing a verbal form (excluding imperatives). Traditional typologies based on canonical word order (Greenberg 1963) ascribe French to a SVO type (Subject-Verb-Object as privileged order). However, specific interactions between word order and the use of (clitic) pronouns give rise to dislocated structures which are common in spoken French. Dislocations can affect Nouns, Noun Phrases or propositions fulfilling distinct syntactic functions as subject and object. There can be left- or right-dislocations, and the contrast between them and other constructions (especially canonical ones), associated with intonative patterns, corresponds to several pragmatic functions in adult speech.

Various patterns of utterances are attested since the outset of the period under study (1;9). VS utterances like << demarre voiture >> ('start(s) car' = 'the car starts '), << est tombe elephant ('is fallen elephant' = 'the elephant fell'), etc. are the easiest to recognize. Such productions might be considered as utterances modeled on adult productions with right dislocations, as it had been already suggested by several authors. This viewpoint is strengthened by the fact that full right-dislocated constructions are common at the end of the period (2;6). At the beginning of the period the omission of pronouns makes it difficult to distinguish utterances modeled on (a) left dislocations and (b) canonical SVO structures. A few indications of the existence of left-dislocated patterns seem available since the outset, but, as soon as (subject) pronouns become productive (about 2;3) such constructions are clearly recognizable. They become relatively numerous at the end of the period : << le tracteur, il prend des cailloux >> ('the tractor, it takes stones'). At this stage, dislocated constructions (especially to the left) are dominant and concern essentially the subject function. Utterances corresponding to minimal canonical structures (SVO or SV) constitute only one of the existing patterns. Their importance may be overestimated because children may not yet have mastered the productive use of clitic pronouns.

In conclusion, even in the earlier period under study, the sequential structure of utterances seems to be influenced by the tendency of the target language (French) to rely heavily on dislocated structures, and canonical structures cannot be considered as the exclusive (or even dominant) model of early child productions.

TUESDAY   Session A: SYNTAX
16:15 - 16:45

CP ACQUISITION BEFORE SUBORDINATION ACQUISITION IN SPANISH

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It is generally accepted that all children, in the acquisition of their mother tongue, go through a stage during which they produce wh-questions, but omit the lexical complementizer. This lack of lexical complementizer had had led to a variety of theories a variety of theories among linguists: Radford (1990); Clashen & Penke (1992) consider that questions are unanalyzed sentences; Meisel & Miller (1992); Penner (1992, 1994) that these structures are IP and Hyams (1992); Weissenborn (1994) suggest they are CP.

We have based this paper on the longitudinal study of the spontaneous speech of two children whose mother tongue is Spanish. The statistically analyzed data shows that these children not only use wh-questions in a productive way but also use a complementizer such as appears in Spanish language in some simple sentences:

- que viene

This productive use of the lexical complementizer, despite of the lack of subordination, and the use of wh-questions would lead us to conclude that CP is present in the early stages of the child's grammar acquisition.

References

CLASHEN, H., & PENKE, M. (1992): "The acquisition of agreement, morphology and its syntactic consequences: new evidence on German child language from Simone-corpus", *The acquisition of verb placement*. Dordrecht, Kluwer Academic Publishers.
HYAMS, N. (1992): "The genesis of clausal structure", *The acquisition of verb placement*. Dordrecht, Kluwer Academic Publishers.

MEISEL, J. & MULLER, N. (1992): "Finiteness, and verb placement in the early grammars. *The acquisition of verb placement.* Dordrecht, Kluwer Academic Publishers.

PENNER, Z. (1992): "The ban on the parameter resetting, default mechanisms, and the acquisition of V2 in Bernese Swiss German". *The acquisition of verb placement.* Dordrecht, Kluwer Academic Publishers.

PENNER, Z. (1994): "Asking Questions without CPs? On the Acquisition of Root wh-questions in Bernese Swiss German and Standard German". *Language Acquisition Studies in Generative Grammar .* Amsterdam, John Benjamins.

RADFORD, A. (1986): "Small children's small clauses", *Bangor Research Papers in Linguistics,* 1, 1-38.

WEISSENBORN, J. (1990): " Functional categories and verb placement in early German: The acquisition of German syntax reconsidered". Westdeutcsher Verlag, Gottingen, Linguistsche Berichte, Sonderheft 3.

TUESDAY   Session A: SYNTAX
16:15 - 16:45

ACQUISITION OF COMPLEX SENTENCES IN SPANISH SPEAKING CHILDREN

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The main goal of this research is to carry out a study of complex sentences acquisition from a functional-constructive point of view. Our basic assumption is that children become linguistically competent as a result of a gradual and recursive learning. More precisely, the aim of the study is to describe and analyze the acquisition of complex sentences by Spanish and Catalan speaking children. The work focuses both in the acquisition of subordination and coordination.

The corpus on which this analysis is based consists of ten bilingual and monolingual children who have been studied from one to four years. The sample contains monthly videorecorded data from children in spontaneous interaction with a familiar adult. The analysis of the syntactic structures coding elaborated by the authors has been performed using CLAN programs.

On the one hand, the work presents some results about the process of the acquisition of complex sentences according to the established typology. On the other hand, the results show that before the use of complex sentences in a productive and independent way, children produce coordinated and subordinated sentences in context, that is, they use complex sentences that depend and have the antecedent on the previous adult production. Thus, we observe that there is a period in the process of language acquisition in which children tend to use coordinated and subordinated sentences in a dependent way. However, we don't observe the same for embedded clauses.

TUESDAY   Session A: SYNTAX
16:15 - 16:45

THE RELATION BETWEEN INPUT AND THE ACQUISITION OF VERB MOVEMENT IN DUTCH

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The basic word order in Dutch is assumed to be SOV. In main clauses however, the finite verb appears in second position (i.e. Verb movement). When learning Dutch a child is confronted with different positions of the verb in main clauses: finite verbs in second position (see 1), nonfinite verbs in final positions (see 2).

1 Ernie *ziet* een boek.
  Ernie see-3SG a book
  'Ernie sees a book.'

2 Ernie wil een boek *zien*.
  Ernie want-3SG a book see-INF
  'Ernie wants to see a book.'

'The child has to learn from the input that verbs can occur in different positions in main clauses depending on whether or not they are finite. However, in current research

on language development in Dutch hardly any attention has been paid to the fact that first language acquisition concerns processes of language development which take place in interaction with the input. In this paper I will go into the relation between language input and language development with respect to the issue of the acquisition of Verb movement in Dutch. For this purpose I will use data I have collected from eight children and their mothers. The material concerns spontaneous child adult interaction in home environment.

First, I will present the results of the study of the position of the verb in early language use of Dutch. Children use finite verbs and nonfinite verbs right from the beginning. It appears that the way children use verbs in early Dutch can be seen as a reflection of the input. Secondly, I will go into the acquisition of Verb movement. I will discuss the idea that the phases a child is going through when acquiring Verb movement can also be seen as a reflection of the; language; input. According to Jordens (1990), I will argue that it is not the acquisition of agreement, but the acquisition of the auxiliaries 'doen' -to do- and 'gaan' -to go' that plays a major role in the acquisition of Verb movement.

Jordens, P. (1990) 'The acquisition of Verb Placement in Dutch and German.'
       Linguistics 28, 1407-1448

TUESDAY   Session B: SEMANTICS
16:15 - 16:45

SATTELITES AS LOCAL TRAJECTORIES: THE CASE OF ENGLISH AND SERBO-CROATIAN

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The study is based on the cross-linguistic research in the development of form-function relationships by children, as proposed and pursued by Berman & Slobin (1994), Slobin (1985), (1995), Clark & Carpenter (1989). The theoretical postulates are further expanded by Fillmore's work on the relationship between grammar and meaning (1988) and Talmy's event conflation typology (1991).
The goal of the study is to show the similarities and/or differences in the linguistic expression and the resulting communicative strategies within the motion-event in the Serbo-Croatian and English narratives. The data were elicited from the following four age groups in both languages: 5;0, 9;0, 11;0 and adults, with 10 informants in each

group (total n=80). The elicitation material consisted of a picture-book without words, known as The Frog Story and previously used by Berman, Slobin, and their collaborators in the Frog narrative cross-linguistic project. The focus of the study is the development of the linguistic means used in the verbs of motion for the local trajectories (source, path, goal). Three motion-event scenes were selected for analysis, each containing one unifying element (the fall).

Preliminary findings show that despite many similarities in the locative projections in both English and Serbo-Croatian narratives, English data show more dynamism in the choice of verb semantics and verb-satellites to express movement, while Serbo-Croatian narratives contain fewer satellites, showing more verb repetition as well as the repetition of grounding elements across age groups.

Discussion of the results is proposed, followed by the potential implications the study has for the analysis of the typologically related languages (satellite-framed) within the context of narrative performance.

Selected References:

Fillmore, Charles (1988)
Clark, E.V. & Carpenter, K.L. (1989) 'The notion of source in language acquisition.' Language, 65, 1-32.
Slobin, D.I. (Ed.)(1985). The crosslinguistic study of language acquisition (vols. 1-2). Hillsdale, NJ: Lawrence Erlbaum Associates.
Berman, R. & D. Slobin (1994) Relating Events in Narratives Hillsdale, NJ: Lawrence Erlbaum Associates.
Talmy, L. (1991) 'Paths to realization: a typology of event conflation.' Proceedings of the Annual Meeting of the Berkeley Linguistic Society, 17.
Novi Sad Corpus of Serbo-Croatian Data, permission by Svenko Sav. University of Novi Sad, Yugoslavia

TUESDAY   Session B: SEMANTICS
16:45 - 17:15

A SEMANTIC ANALYSIS OF CONJUNCTIONS IN THE ACQUISITION OF TURKISH

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BACKGROUND

In the field of child language, both the development of language and language disorders received little attention in Turkey. Thus, both assessment and therapy have long been neglected. In order to contribute to the field of child language and communication disorders in Turkish, a longitudinal research was conducted. The research mainly aimed to observe various aspects of language development to reveal the developmental milestones in the language of 90 children between 6 and 72 months. It is hoped that such a study will provide further evidence for crosslinguistic studies of language universals and/or language specific factors. This present study is a part of this project.

AIM

Since the aim of this study is to draw a developmental profile of conjuctions and their functions in the acquisition of Turkish, the study investigates;
-coordinating and subordinating conjuctions
-the semantic relations these conjuctions express.

METHOD

The data was collected longitudinally from 50 children between the ages of 2-6. 2-year old children were observed with 20-day intervals while children between the ages of 3 and 6 were observed in every 2 months. The data constitutes spontaneous speech sampling guided by pictures, story-books and toys.

DATA ANALYSIS

The data analysed at two stages: At the first stage, the conjuctions used by the children are specified in every age group; and at the second stage, the functions of these conjuctions are identified. To reveal whether there is a developmental difference across

the age groups and to determine the trend of the development across the age groups, the necessary statistical analysis is performed.

TUESDAY   Session B: SEMANTICS
16:15 - 16:45

CHILDREN'S UNDERSTANDING OF EXPRESSIONS OF POSSIBILITY AND NECESSITY

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Two experiments examined children's understanding of expressions of epistemic modality in recognizing inferences under varying degrees of information. In the first experiment, 66 children between the ages of 3 and 5 years of age were presented with a scenario in which two dolls were searching for an object hidden in one or two possible locations. Subjects were asked to choose between contrasting pairs of statements made by the target speaker under conditions of insufficient and sufficient information regarding the whereabouts of the hidden object. Different trials contrasted the use of modal expressions could and must in making inferences and s/he is sure and s/he is not sure in attributing speaker certainty.

Results showed that a significant improvement with age in differentiating between modal inferences as necessarily or possibly true on the basis of available information. A main effect of modal inference was also found, in which children understood necessary inferences better than possible inferences. 5-year-olds understood the possible inferences better than the 3- and 4-year-olds, and 4 and 5-year-olds understood necessary inferences better than the 3-year-olds. A developmental effect was also found for attribution of speaker certainty with 5 year-olds attributing speaker uncertainty more often than 3 and 4 year-olds and 4 year-olds more often than 3 year-olds.

Experiment 2 was designed to test whether children make use of hypothetical information in making inferences themselves, and whether performance on the hypothetical inference task was related to performance on the modal inference task where children were asked to judge necessary inferences by others. The same 66 subjects were again presented with a hidden object task using the same scenarios as in the modal inference task and asked to predict the location of the hidden object after determining its' absence from one of the locations. Results showed that while all children were able to make inferences on the basis of hypothetical information, 4 and 5

year-olds outperformed 3 year-olds. Children were better able to make hypothetical inferences for themselves than recognize necessary inferences in others.

TUESDAY   Session B: SEMANTICS
16:15 - 16:45

ON EVOLUTION OF EXPRESSION OF THE PARTITIVE RELATIONS

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1. In his early days a child does not differ the part and the whole. For example, the word "itik" in a child's speech meant both *a leaf* and *a flower* (See. A. R. Luria, F. Yudovich 1961, 33).

2. Leading off with 2,5-3 year age such perception of the whole and the part yields to a new comprehension of the partitive relations. A child can already differ the part and the whole. But, as J. Piaget's observations and famous experiments show, children have difficulties right away, as soon as it comes to the simultaneous thinking about the whole and the part. When thinking about the whole, the child as if forgets about the part and vice versa. In this stage the whole comes forward as the dominant category, and the part - as the subordinate one. How the child under school age perceives a word is striking example of such approach. For him a word is not a sum of sound complexes, but the whole. He cannot analyse it phonetically, and "hear" the separate sound within the word (although the possibility of very keen distinguishing by the child the phonemes of the mother tongue, forming already by two-year age has been proved by a great number of researches . From the child s view-point the true reality in this case is the whole, i.e. a word, sounds are only the epiphenomena in this reality.

3. Approximately from school age understanding of the compound objects can also go in the direction from the constituent parts to wholeness. The child can alternately perceive one and the same object as an integral, inseparable, and as well as quantity of the homogeneous elements. Then on this bases comes the comprehension of the dialectical and hierarchical connection between the parts and the whole, comprehension of the fact the whole itself can become a part of the other whole.

CHILDREN'S ACQUISITION OF COLOR NAMES BY LEXICAL CONTRAST

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Adults use lexical contrast to help children learn novel names. Although the Principle of Contrast (Clark, 19 s3, 199C3) was considered as a general principle in the acquisition of word meanings, the lack of empirical evidence made it an post-hoc concept, not a predictable one. To elaborate the principle in more specific way. Au & Laframboise (1990) introduced the concept of 'corrective linguistic contrast'. They have asserted that, the linguistic contrast in natural learning context. can be specified as corrective one that is, contrasting children's own label. To prove it, they varied the contrasting words in 3 conditions: no label condition, semantic linguistic contrast condition, and the corrective linguistic contrast. condition. The children learned the novel words better in corrective contrast condition than in other conditions. In their semantic linguistic contrast condition the contrasting words were too random to find the contrastive meaning(e.g. contrast ecru with green). If the contrasting words are more plausible(e.g. contrast ecru with white), the contrast principle might be applied in the semantic linguistic contrast condition. The present studies have been designed to test this possibility.

These studies examined the lexical contrast effect in the acquisition of novel color names in preschool children. In experiment I, we replicated Au & Laframboise's experiment in Korean children. The results showed that. novel color name was learned more effectively in the corrective contrast condition than, in the no label condition or in the random contrast condition, in which the contrasting words are randomly chosen familiar color terms(Au & Laframboise's semantic linguistic condition). The second experiment tested whether the plausible contrast. words are as effective as the corrective one. The contrasting words were selected from the names children used to refer the color in the learning session in experiment 1. The selected color terms were classified as the basic, focal name (white, gray, red, blue, and yellow) and the more specific, subordinate names (e. g. sky blue, purple, brown). Experiment 2 demonstrated that the basic color terms similar to the target color (natural plausible contrast) have the same effect as the children's own label(corrective contrast) in the acquisition of the new color name. In experiment 3, the natural contrast effect was more clearly demonstrated when the contrasting color terms were selected from more specific color names. Together. these findings suggest that it is not the corrective contrast but the natural contrast that facilitates the acquisition of a new term. Of course the corrective

contrast is one of the natural contrast. The contrast principle is more general than to limit it as the corrective contrast condition

TUESDAY   Session C: LEXICON
16:15 - 16:45

THE ROLE OF ONTOLOGICAL CONSTRAINTS IN KOREAN WORD LEARNING: FROM THE CROSSLINGUISTIC POINT OF VIEW

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This paper attempts to figure out whether ontological concepts play a role in Korean word learning. From the crosslinguistic point of view, the result will be compared with that of English from Soja, Carey, & Spelke (1991). Soja et al (1991) propose that the ontological distinction between objects and non-solid substances constrains learning of word meanings prior to the children's mastery of count-mass syntax. In contrast, Quine (1960) suggests that ontological categories such as object and substance emerge as a consequence of language learning. According to Quine's position, people whose language does not have a count-mass syntax would not be able to make the ontological distinction between objects and substances. This kind of dispute can be more clearly approached by examining Korean children's learning of words since unlike English, Korean has no mass-count syntactic distinction.

Experiment: Thirty Korean subjects at each of three age levels participated: 3-year-olds (3;3 to 3;11, M= 3;7); 5-year-olds (5;3 to 5;11, M=5;6); and college students. The experiment contrasted a labeling condition with a non-labeling condition, each of which contained four solid object trials and four non-solid substance trials. The examples of each trials were made out of different materials: wood, styrofoam, shampoo, moose, hand cream, and etc. We used a match-to-a-standard task that included ontological and shape alternatives. In the labeling condition, subjects were presented with a standard and told its name (i.e., "This is a 'Abo'."). They were then shown the test stimuli and asked, "Which of these is a 'Abo'?". One of the alternatives was similar to the original in shape but made of a different material and the other was similar to the original in material makeup, but consisted of several chunks of that material. The non-labeling condition differed from the labeling condition only in that the subjects were not told its name when being shown a standard; subjects were shown the test stimuli and asked, "Which of these is similar to the standard?".

Results: The results indicated that the 3-year-olds showed a strong shape bias in the labeling condition (i.e., 88.3% in the object trials and 76.7% in the substance trials), but not in the non-labeling condition (i.e., 81.8% in the object trials and 28.3o/o in the substance trials). The shape bias decreased as age level goed up. Let us focus on 3-year-olds' learning of words in our data. The data clearly contrasted with those of English from Soja et al. (1991) in that the ontological category concepts such as object and non-solid substance do not govern word learning in Korean. But it does not mean that our data can be interpreted in terms of Quinean position. Looking at the non-label data, we can notice that Korean children do understand the ontological distinction such as objects and substances. We thus conclude that even though Korean children can distinguish the objects from the non-solid substances, they do not use this kind of knowledge to induce the meaning of new words. Rather, they generalize words to new situations on the basis of the same perceptual dimension such as shape. The question then arises as to how to account for this kind of contrast between Korean and English. The result will be discussed in more detail from the crosslinguistic point of view.

TUESDAY   Session C: LEXICON
16;15 - 16:45

EARLY LEXICAL DEVELOPMENT IN FRENCH : FORMAL AND FUNCTIONAL
ASPECTS OF WORD CLASSES ACQUISITION

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A crucial issue in the study of early lexical development is the question of how word classes -- such as nouns, verbs, adjectives, pronouns, etc. -- are acquired by young children. This question requires investigations on timing, sequencing, and frequency during the emergence of different word classes in child language, and on the factors which determine their acquisition.

A number of studies, mostly on English-learning children, have indicated that common nouns form at first the base of the early lexicon, followed by verbs, and later by closed-class items. A recent study by Bates and colleagues (1994), using parental reports of a large sample of English-speaking children aged from 0;8 to 2;6, confirmed these progressions and concluded that vocabulary evolution reflects a shift in emphasis from reference, to predication, to grammar. However, the existence of individual stylistic differences requires that these general trends be qualified. Moreover, the question

remains of the impact of crosslinguistic variations on the course of word-class development.

The present study investigates the emergence and early development of the productive lexicon of a French child. A longitudinal corpus of naturalistic productions was collected between the ages of 1;2 to 2;6, and the lexical composition of the child's utterances (monthly samples of 120 utterances) was analysed.

A first set of analyses examines the overall quantitative expansion of the child's lexicon on the basis of the rate with which tokens, types, and new words increase. The lexicon showed a non-linear progression, with a first quasi-stable period, followed by a moderate but regular increase from about 1;6 on, and finally a sharp increase from 2;3 on. A second set of analyses, discussed in a crosslinguistic perspective, focuses on the composition of the lexicon and its qualitative changes. Developmental trends globally in accordance with those observed by Bates et al. were found for basic categories of words: nouns were the most frequent at first and decreased thereafter, while predicates and grammatical items increased. However, results also revealed the role of a particular class of elements-- << para-lexical >>items, such as << fillers >>, interjections, frozen phrases -- that formed the greatest part of the lexicon during the first months, as well as the early and important part of grammatical items in French. Finally, a last set of analyses, devoted to the investigation of factors influencing word classes acquisition, explores the relations between the lexical composition of utterances and some of their functional and formal properties, such as their communicative function or their length.

TUESDAY Session C: LEXICON
16:15 - 16:45

EDUCATING ATTENTION AND THE EMERGENCE OF THE LEXICON: DETECTING AMODAL INVARIANTS IN SPEECH AND ACTION

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The present research explores whether the detection of amodal invariant patterns in action and speech assists infants in noticing an equivalence between world and word.

Studies of intermodal perception (Bahrick, Lewkowitz, Spelke, Walker-Andrews) address how infants determine which patterns of stimulation belong together and originate from a single event and which are unrelated. These investigations support the

notion that infants detect amodal invariant relations, such as tempo, rhythmicity, synchronous initiation. These invariant patterns co-occur across modalities in sound, in action, in touch, in odor, in vision within an event. For instance in several experiments, infants detected the relation between seeing and hearing a toy repeatedly hitting a surface. In harmony with these findings, caregivers direct infants to notice amodal invariants relations (simultaneous initiation, tempo, and rhythmicity) common to the saying and the gesturing that directs attention to animate beings, objects, actions, and events. For instance, caregivers finely coordinate the saying of "do:: lly::" and the rotating of the toy in the infant's line of sight. These attention-directing interactions make the relation between word and object audio-visible.

A series of studies conducted among Latino and Euro-American families in Central Mexico and the U. S. examined the methods caregivers use to "educate attention" for communicative ends. Attention-getting,
sustaining, and -directing interactions were analyzed in terms of informational properties of gesture, target of attention, specificity of the verbal message, and the communicative level of the infant.

Robust findings from these investigations suggest that caregivers pick out and infants pick up the same set of amodal invariant relations displayed simultaneously in very different events, one in speech and one in action. This perceptual process may underlie the emergence of the lexicon by the marking of equivalence across modalities and simultaneously the equivalence between unlike kinds of things: world and word.

TUESDAY   Session C: LEXICON
16:15 - 16:45

PRELIMINARY RESULTS OF AN ITALIAN SPOKEN CORPUS OF CHILDREN'S LANGUAGE

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The study of language is one of the disciplines which has most benefited from the development and diffusion of computer technology. In this respect, a particularly important role has been played by the availability of large textual corpora used as important research resources; therefore, corpus-based studies of language have provided increasingly reliable results over the past few years.

The corpora of spoken language currently available are less numerous than those of written language, owing to the many theoretical and practical problems involved. Standards for the creation of corpora already exist for children's written language, while there are practically no large collections in Italy of children's spoken language. For this reason, in order to contribute to the needs of the scientific community, we decided to concentrate our efforts in this direction.

In this paper we describe the criteria adopted for the creation of a corpus of spoken language produced by children of three to eleven years of age, and the methodology used for the collection of data. We also present some results concerning the lexical production of primary school children in different communicative situations (report of events and personal experiences, storytelling, description of pictures, rules of games, etc.). Our data will be compared both with that of the written language produced by children of the same age group published in Lessico Elementare (1994) and with that of spoken adult language appeared in Lessico di Frequenza dell'Italiano Parlato (1993).

This study is to be included among the different activities carried out within the framework of the CLI (Corpus di Linguaggio Infantile), a special project of CNR (Italian National Research Council), whose aim is to create a spoken corpus of children's language for Italian. The corpus, consisting of 500,000 words produced by children of three to eleven years of age in different communicative situations, will be lemmatized and morphologically tagged. The collection of the data, still underway, has been carried out in nursery and primary schools. In order to obtain different types of linguistic production (lexicon, types of language, etc.), we studied and proposed various kinds of activities which have been performed and recorded during normal didactic activities.

The recordings have been carried out using DAT (Digital Audio Tape recorder) equipment.
For transcription and codification on computer, still in course, we have adopted the standards indicated by the CHILDES (CHIld Language Data Exchange System) Project.

TUESDAY   Session D: COGNITION
16:15 - 16:45

LINGUISTIC ABILITY IN YOUTH MAY FORESTALL DEMENTIA IN OLD AGE

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The strongest risk factor for the development of dementia in old age has been consistently shown to be low educational attainment in youth, presumably because of lifestyle differences, occupational exposures, or test bias. Alternatively, well-educated individuals may start out with a higher 'baseline' of neurocognitive development, or larger neurocognitive reserve capacity, for dementia than poorly educated individuals.

A longitudinal study of aging and dementia has been initiated in a congregation of Catholic nuns in order to directly investigate risk factors for the dementia. The nuns are currently undergoing annual cognitive and physical assessments; all were born before 1917 and they are currently 77 to 103 years of age. Although generalizations from this population to other groups may be limited, an advantage of studying this population is that lifestyle variability is greatly reduced. In addition, extensive archival information is available about the study participants including information on their schooling. A unique aspect of this study is the availability of autobiographies written by the nuns when they first joined the congregation at about age 20.

The present study was motivated by the hypothesis that measures of linguistic ability in young adulthood might predict cognitive function and the risk of dementia in late adulthood. Two measures of linguistic ability in young adulthood were derived from the autobiographies: a measure of grammatical complexity, and a measure of propositional or ideational content. Both measures have been previously used to describe age-related changes to adults' language and to assess the effects of Alzheimer's dementia on adults' language.

Results to data have demonstrated that grammatical complexity and propositional content, derived from autobiographies written in young adulthood, are associated with the maintenance of cognitive function in late adulthood: The prevalence of cognitive impairment in late adulthood for nuns defined as low in grammatical complexity or propositional density in young adulthood was significantly greater than that for those with high levels of grammatical complexity and propositional content in young adulthood.

These results imply that there is a common mediator that boosts linguistic ability in young adulthood and continues to provides a protective advantage for cognitive in late adulthood. A candidate for such a common mediator is the degree of neurocognitive development in young adulthood. Individual differences in the ability to construct grammatical complex sentences or to encode many propositions in a single sentence may reflect the degree of neurocognitive development in youth and a high level of neurocognitive development may forestall the erosion of cognitive function over the life-span.

TUESDAY   Session D: COGNITION
16:15 - 16:45

THE RELATIONSHIP BETWEEN LANGUAGE AND COGNITION IN MENTALLY RETARDED CHILDREN

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In the language acquisition area, one vital issue is the relationship between language and cognition. The domain-general approach, which was once popular in the developmental psychology, argues that language is simply part of a more general cognitive capacity (Piaget, 1980). In contrast, the modular approach see language as an independent cognitive system based on domain-specific structural principles (Chomsky, 1980; Piatelli-Palmarini, 1980; Fordor, 1983). This paper addresses this issue by exploring the linguistic and nonlinguistic cognitive abilities of mentally retarded Korean children.

Experiment: Subjects were 30 mentally retarded children whose mental ages ranges 2;8 to 4;0 (M=3;6). The experimental procedure is similar to that of Lee (in preparation). The experiment contrasted a labeling condition with a non-labeling condition, each of which contained four solid object trials and four non-solid substance trials. The examples of each trials were made out of different materials: wood, styrofoam, shampoo, moose, hand cream, and etc. We used a match-to-a-standard task that included ontological and shape alternatives. In the labeling condition, subjects were presented with a standard and told its name (i.e., "This is a 'Himo'."). They were then shown the test stimuli and asked, "Which of these is a 'Himo'?". One of the alternatives was similar to the original in shape but made of a different material and the other was similar to the original in material makeup, but consisted of several

chunks of that material. The non-labeling condition differed from the labeling condition only in that the subjects were not told its name when being shown a standard; subjects were shown the test stimuli and asked, "Which of these is similar to the standard?".

Results: The result indicated that the mentally retarded children showed a shape bias in the labeling condition (i.e., 81 % in the object trials and 70% in the substance trials) not in the nonlabeling condition (i.e., 58% in the object trials and 30% in the substance trials). What is interesting in our data is that in the non-labeling condition, the mentally retarded children distinguish the objects from the substances only at the 20% level. The mentally retarded children's performance reflected some contrast between the labeling condition and the non-labeling condition when being compared with that of the normal children. According to Lee (in preparation), the 3-year-old normal children showed a shape bias as the mentally retarded children did in the labeling condition (i.e., 88.3% in the object trials and 76.7% in the substance trials). However in the non-labeling condition, the normal children select the shape-matched stimulus at the 81.8% level in the object trials and the 28.3% level in the substance trials. In another word, they clearly distinguished the objects from the substances in terms of ontological concepts. The contrast between normal and mentally retarded children suggest that the mentally retarded children's linguistic ability relatively more intact than their nonlinguistic cognitive capacity. We will discuss this finding as an evidence to support the modular view that various components of language are separable from some aspects of cognition.

TUESDAY   Session D: COGNITION
16:15 - 16:45

MODELING VERBAL THINKING DURING THE PRESCHOOL YEARS: A COMPARISON OF MIDDLE-CLASS AND LOW-INCOME MOTHERS' INTERACTIONS DURING BOOK SHARING

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In the vein of Vygotsky's sociohistorical theory, this study sought to explore the manner in which mothers expose their children to the culturally valued ways of using their language in the service of thinking. The parent-child book sharing activity is a particularly fruitful cultural practice for exploring how mothers' model such verbal thinking and problem solving. The study expanded on pioneering work by Shirley Brice Heath (I 982, 1983), in which she explored this socialization process in her ethnography of three different communities, one middle-class and two low-income. She found that the middle-class and the one low-income community that read to their children did so in quite different ways, with the middle-income mothers going beyond the text to lead the children into thinking about how and why events take place in stories and to make affective commentaries about the unfolding of events. Heath provides no quantitative data to support her claims, leaving the impression that the communities she studied were rather monolithic in their book sharing interaction patterns. In the current study, 35 middle-class and 27 low-income mother-child dyads were videotaped reading an unfamiliar and a familiar book to their child. The children were between 3;6 and 4;1. The dyads in the low-income sample were videotaped again approximately one year later reading an unfamiliar and a familiar book. The mothers discussions that extended beyond the text were coded for four levels of abstraction. Level I, the least abstract, included comments and questions exposing the child to noticing, naming and locating concrete entities. Level IV, the most abstract, included such things as predicting, explaining, or providing factual knowledge. Levels II and III were intermediate between these two. It was hypothesized that middle-class mothers would provide more input at the higher levels of abstraction. However, it was also believed that the study would reveal a great deal of variability within each of these socioeconomic groups, dispelling the group homogeneity implied in Heath's work. To date, results have been obtained only for the familiar book at Time I. The middle-class mothers differed from the low-income mothers in one respect only -- they provided

significantly more input at the highest level of abstraction (Level IV). There was also, as predicted, a great deal of variability within each group. Data for the unfamiliar book at Time 1 for both groups, and for the low-income group at Time 2 remain to be analyzed.

TUESDAY   Session D: COGNITION
16:15 - 16:45

SITUATED INPUT EFFECTS ON CATEGORY TERMS

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In a classic paper, Brown (1958) argued that reference is intentional, that is, it is governed to some extent by a speaker's construal of situations. A similar view is applied in this paper to an interpretation of input effects. Several kinds of arguments have been made about input effects, the most familiar being the "motherese" hypothesis: that features of the target language manifested in parental speech, such as simplifications or repetitions, are causally related to subsequent linguistic achievements by the child (see Hoff-Ginsburg & Shatz,1982; Gleitman, Gleitman & Newport,1984). This study explores whether situationally-relevant input influences subsequent category preferences by children in similar situations.

Twenty-two parent child dyads from a university-based preschool took part, 12 boys and 10 girls; three fathers and 1 9 mothers. The children were 2;6 at the beginning of the study and outcome (dependent) measures were collected from 3;6 until age 7;6. Parent-child conversations about pictures, texts and their interpretations were analyzed for situationally-relevant input. "Situationally-relevant" is defined as analytic or metarepresentational, since representations (pictures and texts) define the situation; superordinate category labels, references to mental states and references to language *qua* representation are taken as analytic. Subsequent category preference dependent measures were picture sort and rationale, receptive category knowledge and category use in word definition tasks. The dependent measures showed statistically significant . developmental increases in category preferences, consistent with well-established findings in developmental psychology.

The input data was coded for three levels of labels (superordinate, basic, subordinate), reference to cognitive and emotional inner states metalinguistic references, analytic or test questions, responses and feedback. Two levels of analysis were performed between

the input at child's age 2;6 and outcome measures at ages 3;6 to 7;6: raw correlations to determine patterns of significance across years, and MULTIGORR tests across multi-year matrixes of stable, significant correlations to determine whether the patterns were significantly different from chance. Results supported the hypothesis of a relation between situationally-relevant input and later category preferences. Analysis of variance was performed on a composite variable derived from the significant features of the input and similar features in the children's language, to examine developmental trends in both parents' and children's use of situationally-relevant language. Trends were both significant and parallel, with frequency of parents' use consistent y several points higher than children's across years.

TUESDAY   Session D: COGNITION
16:15 - 16:45

THE LINGUISTIC MASS/COUNT DISTINCTION AS AN INDICATOR OF REFERENT CATEGORIZATION: MONOLINGUAL VS. BILINGUAL PROCESSING

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This study examines the acquisition of the linguistic Mass/Count distinction in English by bilingual (Spanish-English) children. The goal of the study was to explore whether bilingual children respond to Noun Phrases that vary in M/C status in a manner that is similar to their monolingual peers. Previous research suggests that monolingual English-speaking children are able to rely heavily on the mass/count status of new words when inferring whether those new words refer to objects or substances (Gathercole, Cramer, Somerville, & Jansen op de Haar 1995, Gathercole & Cramer 1995). This study examines whether bilingual children of the same ages make use of this linguistic information in a similar fashion.
Subjects were 72 7- and 9-year-olds. Half were monolingual subjects, half bilingual speakers of English and Spanish, in Miami, FL. Bilingual subjects were judged by parents and teachers to be fully bilingual and to speak the two languages "about equally". All subjects were attending public schools and were students in normal, English-only classrooms. Each subject was shown 9 target stimuli with new names in one of three conditions, and was asked which of two other items (same shape or same substance)

could also be referred to by that name. The 3 conditions varied by the syntax heard (mass, count, neutral). Results show a clear difference in the monolingual and bilingual children's response patterns.

Monolingual children of both age groups show a clear-cut reliance on the mass/count status of the new noun in determining extension of the new word: in mass contexts, they extend it to the same-substance item, in count contexts, they extend it to the same-shape item. Bilingual 7-year-olds show no difference in their response patterns in the three conditions, revealing little attention to the mass/count linguistic frames. Bilingual 9-year-olds show a tendency towards same-substance choices with mass stimuli, and same-shape choices with count stimuli, but their responses are more like the 4-year-olds of Gathercole et al. (1995) than like the monolingual 7- or 9-year-olds here.

The results here are consistent with another study being conducted in which monolingual and bilingual children's judgments of grammaticality for mass/count structures are compared. Bilingual children in both this and that study appear to lag behind their monolingual peers, showing patterns similar to those exemplified among monolinguals at younger ages. Several alternative explanations for the results are entertained, including the possibility that bilinguals lag behind simply because of the amount of input available to monolingual vs. bilingual children.

Gathercole, V., Cramer, L., Somerville, S., & Jansen op de Haar, M. 1995) Ontological categories and function: Acquisition of new names. Cognitive Development, in press.
Gathercole, V., & Cramer, L. /1995) New names and experience with function. Poster presentation atBiennial Meeting of the Society for Research in Child Development, April 1, 1995, Indianapolis.

SYMMETRICAL READINGS AND PROPORTIONAL QUANTIFICATION

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This paper reports the results of two Dutch experiments investigating children's non-adult-like symmetrical readings (SRs) of universally quantified sentences (UQSs) (Inhelder and Piaget 1964, Donaldson/Lloyd 1974, Philip 1995). The results suggest that children may assign SRs only to sentences with 'proportional' or 'essentially relational' quantification (Partee 1994). SRs of sentences like 'Every boy is riding a pony' are one-to-one distributive readings of two types: (1) 'overexhaustive search': a failure to cut back the set of ponies under consideration to those which are to be paired with boys, and/or (2) 'underexhaustive search': a refusal to extend the search for boys beyond the actual pony-riders (Freeman 1985). Experiment-1 (N=93,Ages: 4; 1-6;4,Mean: 5;0) tested the hypothesis that children will exhibit SRs for sentences with (weak, nonproportional) cardinal determiners as well as those with universal (strong, proportional) determiners (predicted by e.g. Roeper/ de Villiers 1991). The results illustrate that while Dutch children interpret sentences quantified with cardinal determiners (twee (two')) like adults (90% correct responses), they exhibit an underexhaustive search reading on sentences with iedere/every (48% correct responses), suggesting that the SR is linked specifically to universal (determiner) quantification (Philip 1995). Experiment-2 (N=160,Ages:4;2-6;5,Mean:5;2) tested the hypothesis that children assign Srs to universal quantifiers not because they express universality, but because they are 'essentially relational' or proportional (Partee 1995). The results indicate that Dutch children assign an SR to 'iedere' sentences (universal, proportional) but not to sentences with definite plurals (universal, nonproportional) in the same contexts, suggesting that children build an SR strictly for sentences with proportional quantifiers.

COMPREHENSION BY YOUNG CHILDREN OF ADULT'S SENTENCES
ACCORDING TO THE SOCIAL SITUATION

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The aim of the present study is to determine the emergence and early development of children's capacity to interpret adult's utterances such as requests according to: (a) the literal meaning, (b) the context of production. Eight groups of ten children each, starting from 17 months to 31 months, are observed cross-sectionally. Ten children are observed longitudinally starting from 17 months to 24 months and from 24 months to 31 months. Children are filmed in two situations of play with toys. The situations consist of a game with a doll and doll clothes and a game with plastic animals and a puzzle for the older children. These joint activities make up the context of utterance production which varies according to the degree of the interpretation constraint (object referred to in the sentences is or is not clearly linked to the joint activity). Five types of messages are uttered to the children, ranging from the most direct form of request (donne-moi / give me...) to more allusive one (tu as...? / Do you have...?) which may be, according to the context, an indirect action request or a request for information or expressions of desires.
To analyse the children's interpretation, we use both non-verbal behaviors (to give an object, gazes to the adult or to the environment, to be attentive to the referred object by manipulating it or by looking at it...) and verbal behaviours (vocalisations, words, sentences).

The first results show that children choose their answers by considering both the social situation and the literal function of the messages. When the link between the referred object and the joint activity is clear, children give the object referred to in the sentences. As early as 17 months, they are able to interpret even the more allusive utterances such as action request. When the link between the object and the joint activity is not clear, they look at the speaker or the environment. They also give some information (clarification requests, assertions...) but they rarely give the object referred to.

TUESDAY   Session E: PRAGMATICS
16:15 - 16:45

PRESUPPOSITIONS AND WH- QUESTIONS IN ITALIAN TODDLERS

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This paper investigates skills necessary in WH-questions understanding and proposes an evaluation of the ontogenesis of presuppositions comprehension. In order to that, some pragmatic features of WH-questions are examinated by these groups of items:
1) context study: "where is"-questions referred to contextual and not contextual objects
2) intonation study:

   - word+question intonation (e.g. "dolly?").
   - not-Word instead of "where"? (e.g. "rupu is the ball?").

3) WH-marker study: elliptical WH-questions (e.g. "where is?" "Whose is?" "how is?" "where is (it) going?") are asked: the child must be able to use presuppositions concerning the perceptive and verbal context in the conversation and to understand the WH-marker at least in part.

Fifty-eight first-secondborn Italian toddlers are pretested for admission by: longitudinal evaluation of motor development, some items of Brunet-Lezine test, and the cognitive evaluation of spontaneous play during an half an hour interaction. Forty-six children, from 17, 27 to 24, 28 months, are selected (26 females and 20 males): The observations are video recorded in a quiet living-room, after adaptation, in the presence of the child's mother, by a hidden camera. The same toys are always used.

Our results confirm the role of prosody; both types of questions of group 2) are interpreted as "where?"-questions by most children. "where is?" and "whose is?" in elliptical questions are answered correctly even by younger children who can differentiate the type of question and so of the WH-marker, perhaps using the perceptive context. Confusion with "what is?" is present only in 4, 34a/o of responses. On the contrary, presuppositions that refer mostly to the verbal context are understood after 21 months ($p < 0, 025$); the same for "where?" + verb ($p < 0, 05$), and "where?" for absent objects ($p < 0, 025$). Only a few children answer elliptical' questions with difficult WH-forms ("how is?") appropriately.

Our data show that responses of Italian toddlers in our sample are not routines. They use almost all the studied elements of WH-question presuppositions, even before 21 months: intonation and context, but also an early lexical understanding of the WH-marker. The conversational context is more used after 21 months.

Dore J. "Oh them sheriff": a pragmatic analysis of children's responses to questions. In:
S. Ervin-Tripp,C. Mitchell-Kernan, Child discourse, NY Academic Press, 1977. Allen
R., Shatz M. "What says meow?" The role of context and linguistic experience in very
young children's responses to what- questions. J. Child Lang 10: 321-335, 1983.

TUESDAY   Session E: PRAGMATICS
16:15 - 16:45

GANG LANGUAGE IN THE UNITED STATES

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Teenage gangs are becoming a societal problem in the United States of America.
Gangs currently exist across all races, all socio-economic levels, and all sizes of towns.
The gangs cause problems in a range of ways from just .hanging out together to
murder. They have a variety of markers to indicate gang membership and one of the
most interesting is their oral and written language. The gangs have created their own
novel language. The purpose of this research is to investigate the oral language of
gangs.

The data were collected in six states, three western states (California, Nevada and
Utah), and three midwestern states (Kansas, Missouri and Illinois). The method of
collection was the interviewing of informants. The 20 informants were police officers
specializing in gangs, ex-gang members, and several current gang members. Gang
members take pride in hiding inside information from people outside gangs, so this
data is unusual and has never been previously available.
As we submit this abstract, over half of the data has been collected and analyzed. The
results indicate that: [1] gang language primarily extends across gangs with only nine
percent of the use gang specific; [2] gang language involves pragmatics, semantics and
syntax; [3] some of the gang language used by all racial groups seems to have been
assimilated from African-American English and from Hispanic-American English.

The results will be presented in terms of the general conclusions stated above and in terms of a specific "dictionary" of exact phrases and words with the meaning. Pragmatic, semantic and syntactic categories will be specified. Any items that have originated from other languages or dialects will be listed by groups. The final analysis of data will. be to indicate how many informants presented each item as gang language. For example, some words or expressions have been identified by every informant, some only by several.

This data has been difficult to collect and we share our findings with pride. Gang language is particularly interesting because the evolution is recent and rapid. There is a strong political motivation to use this language for communication within and across gangs but to keep the linguistic pattern unique, secret and separate from non-gang people and the spoken language in general use.

TUESDAY   Session E: PRAGMATICS
16:15 - 16:45

TRANSFER OF EARLY COMMUNICATION STRATEGIES BETWEEN SETTINGS

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Do young children carry their communication strategies between settings, such as day care and home? Or do they use different strategies in each setting? Do young children have certain styles or strategies for communication in the pre- or early linguistic stage of communication? Ten children (aged 16 to 29 months; 5 Swedish, 5 American) were observed in their day care centers and at home. Communicative behaviors of each child were examined, (1) to see if they could be characterized into different strategies or styles of communication, and (2) to see if children used a similar style in both settings.

Communicative behaviors of each child were observed and recorded every 15 seconds for 20 minutes in each setting. Only behaviors that the children directed towards adults (teachers at day care, parents at home) were studied. Behaviors included vocalize, point, eye contact, look, joint reference and show/offer.

The behaviors of two of the ten children fit an average group pattern identified in previous work using a larger sample (40) at day care centers. The remaining children's behaviors could be characterized as falling into either a highly vocal style or a highly

visual style of communication. The highly vocal style was characterized by much vocalizing to the adult partner. Visual communication (looking at, eye contact, joint referencing), when it occurred, was almost always combined with vocalizing to the adult. The highly visual style was characterized by high amounts of visual communication (looking at, making eye contact, joint referencing) with the adult partner and very little vocalizing.

Children who had a highly vocal style of communicating at day care also used a highly vocal style at home (4 children in this sample). Children who had a highly visual style at day care, however, did not necessarily use a highly visual style at home. While some of the children used a highly visual style in both settings (3 children), one child used a highly visual style at day care and a highly vocal style at home.

This study suggests that, although this may not always be the case, children in the early linguistic stage can have distinctive individual styles of communication which they carry between settings.

TUESDAY   Session F: NARRATIVE
16:15 - 16:45

CHILDREN'S INFERENCES IN THE NARRATION AND MEMORY OF A PICTURE STORY

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Recently, the picture story `Frog, were are you?' by M. Meyer has been widely used to study children's narrative production. In this research, our aim is to assess children's inference production in their verbalization of this story, and the way these inferences modify children's memory of the story as a whole. The story shows is a series of situations including a child and his dog looking for their lost frog. In each picture the storytellers can focus on various elements; each differing in its relevance to the fulfillment of the characters' goal. While verbalizing the unknown picture story presented one page at a time, children often make inferences from their previous verbalizations. These inferences may tun out to be either a correct or a wrong anticipation of the events which follow. If they are confirmed by the following picture, they help children to verbalize a straightforward narration of the story. However, if they are disconfirmed, children have to correct what they have just said in order to acknowledge the wrong path they had anticipated. In this case the verbalization results

in a narration fragmented by the corrections. Our hypothesis is that the number of the inferences to be disconfirmed decreases with age: we suppose that older children can better discriminate between the relevant and irrelevant information provided by the pictures because they are better able to integrate the events of the story. The second aspect of children's inference production we are interested in is whether the disconfirmation of an inference during the narration of the story prevents children from recalling it as a part of the story. Our subjects were sixty upper middle class children, twenty aged six, twenty nine and twenty eleven, interviewed one at a time by the researchers at various schools, in a separate and quiet room. In order to introduce them to the characters of the story, they were told a short story about the child, the dog and the frog. They were then presented with the first picture of the story and asked to tell what was happening. When they had finished their narration, they were given the second picture and so on. Afterwards, they were asked to retell the whole story without looking at the pictures. The children's verbalizations were tape recorded and then transcribed in a Chat format for coding.

TUESDAY   Session F: NARRATIVE
16:15 - 16:45

BILINGUAL TURKISH CHILDREN'S DEVELOPMENT OF NARRATIVE ABILITIES IN THEIR FIRST LANGUAGE: IS IT SUBTRACTIVE BILINGUALISM OR SEMILINGUALISM?

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The research reported in this study was motivated by the findings of a large scale crosslinguistic research project into children's narrative skills in their first languages (Berman & Slobin,1994) and in particular Aksu-Koc's (1994) findings. The narrative data of frog stories was elicited from thirty children who are bilingual in English and Turkish. There were ten children in each of the three groups of five, seven, and nine-year-olds. In order to identify the differences between children's Turkish and English narrative skills, children were asked to produce their stories both in Turkish and English. To eliminate the independent effect of the plot familiarity, half of the children started their narration, first, in Turkish and then in English, the other half started the other way around. It had been assumed that the narrative discourse competence of Turkish children growing up in the second language environment, Australian English, would be different from the monolingual Turkish children's competence. Therefore, some major deviations were noted compared to Aksu-Koc's (1994) findings

concerning linguistic cohesion, thematic coherence, event conflation and connectivity. Even the narrative texts of nine-year-olds were composed of simple independent clauses. The discourse competence of nine-year-olds in this study were comparable, at most, to the five-year-olds' in Aksu-Koc's study, which necessitated the investigation the subjects' bilingual abilities. The British Picture Vocabulary Scale BPVS, (Short Form) was used to identify the extent of subjects' English vocabulary acquisition. On the other hand, a translated form of BPVS (Long Form) was employed for Turkish vocabulary acquisition. The results of vocabulary tests were in line with the findings of narrative skills of the subjects in each language. Some aspects of Cummins' (1976) threshold theory were found to be relevant to bilingual Turkish children's language competence. The overall findings suggest that bilingual Turkish children are unable to organize the Turkish texts they produce in terms of an overall action-structure. The vocabulary tests and the findings of narration task provide strong evidence that Turkish children submerged in English language environment have limited competence in their mother tongue.

TUESDAY   Session F: NARRATIVE
16:15 - 16:45

LANDSCAPE OF ACTION AND LANDSCAPE OF CONSCIOUSNESS IN CHILDREN'S SPONTANEOUS NARRATIVES

Maria Ligeza
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The theoretical background of this research is provided by Bruner's (1986) theory of double landscape of narration, as well as the concepts of story line and story field, as developed by Bokus (1991, 1993), see also papers in Britton & Pellegrini (1990).

The main question is: what linguistic forms are used to point at each of the landscapes separately or at their combination?

60 six-year-olds were asked to narrate a story of their own choice ("Please, tell me a story that nobody had heard before"). The narrative texts produced were very differentiated, as far as their length, coherence, fictional vs. realistic (or mixed) character were concerned. Most of them concerned fictitious or pseudo-fictitious events.

Several strategies of creating story landscapes were identified, as well as linguistic means used to realize them. The majority of the stories, although not all of them contained some reference to the states of consciousness of the protagonists (using mental verbs such as think, believe, feel, want, etc.). A positive correlation was observed between coherence of the episodic structure and developing the plane of consciousness.

TUESDAY   Session F: NARRATIVE
16:15 - 16:45

THE RELATIONSHIP BETWEEN NARRATIVE AND LINGUISTIC SKILLS IN ENGLISH AND SPANISH AMONG HISPANIC SCHOOLCHILDREN IN MIAMI

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To what extent is the conceptual development underlying narrative ability- tied to the linguistic resources of the child? This paper explores the relationship between English language knowledge and narrative ability and the same skills in Spanish for groups of Hispanic-background schoolchildren in Miami. The children, all born in the US, were selected for a quasi-experimental design according to the following parameters: language(s) of the school; language(s) of the home, socio-economic status (SES); and grade (2nd versus 5th). For this paper, 8 groups of 7 children each permit 8 comparisons in which the children differ by only a single parameter; for example, mid-versus low-SES among two-way bilingual 2nd graders with mostly Spanish in the home. The children narrated the wordless picture book Frog Where Are You? (Mayer, 1969) in Spanish and English according to the protocol proposed by Berman & Slobin (1994). Two separate composite scores were derived from the transcripts. One was based on the competence of the story, independent of the level of the language. This included a count of the major story elements, the expression of goals and internal states of the characters, the adequacy of the pronouns in keeping the actors and events straight, and the presence of a hierarchical structure within which some events were highlighted and links were drawn between events. The language score, which was independent of the adequacy of the story, measured vocabulary, morphological accuracy, and "complex syntax" (that is, sentence connectors, embeddings, and various verb phrase features).

Only the low-SES 2nd graders who spoke mostly Spanish at home and were in two-way bilingual programs scored higher overall in Spanish than English. For the other 7 groups, vocabulary subscores were at least 4 times higher in English than Spanish; similar, but smaller disparities in morphosyntactic accuracy were observed between the children's two languages. In contrast, complex syntax, perspective-taking, and the overall story adequacy scores in the two languages were much closer, generally within about 15% of each other, and often higher in Spanish than English. The greater correspondence of these scores in the two languages may indicate greater interdependence across languages for the specific syntactic devices used to link clauses or maintain clear reference, for example, than for the content words and the inflectional elements of the two languages. Unlike with matched groups of monolinguals on the same measures, for whom story scores were generally lower than language scores, story scores for the bilinguals were more often higher than the language score in that language.

TUESDAY   Session F: NARRATIVE
16:15 - 16:45

SELFWORDS IN DIALOGUES AND NARRATIVES
IN FRENCH SPEAKING CHILDREN

Laurent Danon-Boileau   Mireille Brigaudiot   Aliyah Morgenstern
                                  University of Paris III
                                  Paris, France

When they refer to themselves, French children use a wide set of markers: null form, preverbal vowels, name, *moi, tu, il/elle, je*. Previous works show that the various selfwords are all produced during the central stage of the acquisition process of the first person pronoun. We have noted that children start making narratives at that same period. The aim of this research is to understand the relations between the two phenomena.

We have studied the data of two French children collected in their natural environment. The contexts as well as the history of the children's experiences in the entire data are taken into account. Our interpretation of the children's intents are mostly based on the semantic context of the utterances.

First, from age 1;9 to age 2;3, we only find four forms in dialogues:
- null form and preverbal vowels are used in front of verbs of perception, feeling, consciousness, when the children express their inner state.
- *moi* and name appear in front of action verbs when the children challenge the adults and want to do something by themselves.

Then around age 2;3, the children begin to make narratives about past events. In these narratives they will refer to themselves either with *il* or with *tu* but not with *je* or *moi*. The use of *il* for self designation seems to be the rule as if the children saw themselves as any other agent, not as both agent and narrator. *Tu* appears in more restricted contexts when the children report about their exploits and mischief: *t'as fait une grosse betise (you have been very naughty)* says Guillaume to prevent punishment. That type of narrative seems to echo the discourse of an adult who would have witnessed the scene.

The third phase begins around 2;7 when the children become able to articulate their use of self designation in dialogues to that of self designation in narratives. The number of forms quickly reduces and the use becomes much the same as that of the adults.

At the end of this process, the children are full enunciators capable of speaking of themselves and of judging what they have been and will become through time: *Quand j'etais avant bebe je disais ta, maintenant je dis table (Before, when I was a baby, I used to say ta, now I say table)*.

WEDNESDAY Session: PLENARY
10:00 - 10:50　　　　Room B

LANGUAGE ACQUISITION THROUGH THE LEXICON

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WEDNESDAY　　　　Session A: EARLY ACQUISITION
11:10 - 11:40　　　　POSTER-WORKSHOP

FROM BABBLING TO FIRST LANGUAGE IN NORMAL AND ATYPICAL LANGUAGE DEVELOPMENT: THE STATE OF THE ART AND NEW PROBLEMATICS IN FRENCH RESEARCH GROUPS

Convenor: Gabrielle Konopczynski
Isabelle Sauvage
Charles Bried, Shirley Vinter & Marie Le Normand
Gabrielle Konopczynski
Gabrielle Konopczynski & Shirley Vinter
Ilona Kassai
Jung Sook Bae
Marie Le Normand, Shirley Vinter & Gabrielle Konopczynski
Gabrielle Konopczynski, Shirley Vinter, Marie Le Normand & Virginie Granboulan
Shirley Vinter

This poster-symposium or poster-workshop will contain nine posters divided into two sets, all presented by French scholars.

The organization of the poster-workshop could be the following:
- general introduction to the whole problematics
- summary of the two sets of posters and the questions raised by each set
- break for individual examination of the posters and individual discussion with the authors

- general discussion

Other kinds of organization also would probably work, but the Conference description does not give any details about the possible organization of the workshops.

Title of the six posters:

set 1: descriptive aim:

1. Children's melodies, mothers' melodies: Is there agreement in interaction?

2. Interactive styles in conversations between mother/deaf child: Control or responsiveness?

3. Prosodic characteristics of solitary and social babbling in the French child (9-24 months)

4. Evolution of the vocal characteristics in the hearing child and in the deaf child in the first two years.

5. Timing patterns in the one-word utterance stage in one Hungarian child.

6. Development of nasal vowel syllables in a French and in a Korean child: A longitudinal case study.

set 2: theoretical content:

7. Language outcome from a consonant-vowel dissociation in single word production: Data from two case reports. months.

8. From babbling to first words: A case of a child decannulated at 8

9. Possible gateways to language and speech in the profoundly deaf child

POSTER no 1

CHILDREN'S MELODIES, MOTHERS' MELODIES: IS THERE AGREEMENT IN INTERACTION?

Isabelle Sauvage
Franche-Comte University
Besancon, France

The poster focuses on some prosodic aspects of interactions between mother/ baby at the pivotal stage between 9 and 16 months, when proto-dialogs take an important place. It has been shown that the interactive style of the mother and especially the more or less close relation between the child's and the mother's utterances may be an important cue to later language development.

Our aim is twofold:
- to find out if and how a mother takes into account the not yet articulated and not yet referential utterances of her baby to answer him
- to see if the child, when taking his/her speaking turn, does rest on his/her mother's prosodic cues, and especially her melodic curves, to continue the interaction.

We recorded four dyads mother/infant in free play situation and tried to find out if there is vocal and especially melodic agreement between the two partners of the dyad. A first hypothesis, coming from a global auditory impression of mothers/babies conversations, was that each partner builds his/her utterances by adopting the melodic curve and the voice height of the preceding utterance emitted by the interactant.

The results, provided by a fine auditory analysis done by a pianist who transcribed the melodies and the initial and final note of each utterance, showed that two main cases appeared.

When there was a good general agreement between the two partners, agreement about the play situation, the activity engaged, etc. there was also a good agreement in the melodic curves, who had generally the same shape, the mother repeating the curve of the baby and vice-versa. Not only was there agreement in the shape of the melodic curves, but also in the height of the voice. We hypothesized that the initial note of the two partners would be more or less the same. This was not the case. Instead, the final note did correspond. The explanation of this phenomenon could be that each speaker begins his turn at his own voice level, and quickly adapting to his interactant's voice, finishes at the level of his/her partner's voice.

When there was no general agreement between the two partners, for different reasons (each willing to do something different, etc.), the agreement in melodic curves and voice height was also missing.

Examples of these two situations will be given, illustrated by photos and musical transcription of the dialogs.

POSTER no 2

INTERACTIVE STYLES IN THE CONVERSATIONS BETWEEN MOTHER/DEAF CHILD: CONTROL OR RESPONSIVENESS?

Charles Bried   Shirley Vinter   Marie Le Normand
   Franche-Comte University   Infant Neuropsychology Laboratoary
      Besancon, France   Paris, France

Empirical studies on verbal interactions mother/deaf child emphasize on:
- the particular difficulty for the adult to process unusual child productions
- the absence of congruence between the utterances of the two partners of the exchange.
These two variables have been stressed as correlates of restricted language development in the hearing-impaired child.

However, Cross (1980) suggested that the best predictor of language development in the hearing-impaired child could be the number of mother utterances related to those of her deaf child. The quality of feed-back the mother provides to her child during the first year of life seems to significantly influence his/her later language acquisition.

It has also been noticed that some deaf children, despite a severe handicap, succeed in reaching a level of verbal language similar to the one of the non hearing-impaired children.

The working hypothesis of this study was that the big individual differences observed in the different deaf children occurred, to a certain extent, from the first exchanges mother/ child. An essential factor of the regulation of vocalizations and of the orientation towards language and speech is the maternal responsiveness. This phenomenon, true for the general population, is more important and therefore more revealing in handicapped children, particularly in deaf children.

Four dyads mother/ deaf children aged 2;5 years at the beginning of the study were followed over a period of five years. The data showed important individual differences in the language acquisition of these children, differences which seem to be due to the particular interactive styles of the mothers. Such findings bring new evidence of the importance of the type of interactive styles, which were categorized in two main types: control-intrusion and responsiveness. A relationship between these two styles and the language outcome at age 7 is reported and discussed as one of the best predictors of later language development. These findings need to be investigated by further research on different populations.

POSTER no 3

PROSODIC CHARACTERISTICS OF SOLITARY AND SOCIAL BABBLING IN THE FRENCH CHILD (9-24 MONTHS)

Gabrielle Konopczynski
Franche-Comte University
Besancon, France

During the pivotal period between prelanguage and the beginnings of articulated language, when the child passes from pure vocal play to the production of the very first interpretable linguistic units, s/he already knows how to use differentiated utterances appropriate to the context. There is a positive correlation between utterance context, type of utterance and auditory and acoustic characteristics of the utterances. Babbling is neither egocentric nor monolithic: it contains various types of utterances depending on the situational context. When a child is alone, s/he emits non communicative vocalizations to which listeners are unable to attribute meaning. However, in an interactive situation the sound production looks more adult-like, and listeners generally classify the utterances into linguistic categories called proto-language.

I. NON COMMUNICATIVE BABBLING.

In this category there are no organized sequences; sometimes utterances can appear in complete isolation, with long pauses in between, or in long strings, looking nearly logorrheic; the only limits are the child's respiratory capacities.

Syllabic aspect: utterances are mainly made up of vowel-like sounds.

Temporal aspect: odd duration and random distribution.

Vocal aspect: the child explores all the possibilities of his/her voice, going to the extremes - both creak and squeal- of his/her range.

Melodic aspect: presence of complex or odd melodic curves

On the whole, non-communicative babbling does not show any organization, only exploratory behavior.

These characteristics do not evolve with age. Non communicative babbling diminishes in quantity, but does not change in character.

INTERACTIVE PROTO-LANGUAGE.

This category appears in structured sequences

Syllabic organization: mainly made up of canonical CV, reduplicated or variegated, structures.

Temporal organization: the syllabic duration is near the adult duration, with a bell shape distribution. It evolves with age, and towards 14 the French child has acquired the typical trailer-timed structure of his mother-tongue, with a clear final lengthening indicating the end of the utterance.

Melodic organization: the melodic curves are simple, recurrent and often organized so as to be specific to a precise linguistic modality. They acquire a linguistic function, and thus become intonation.

It can be said that solitary non communicative babbling and interactive protolanguage are totally opposed in all their prosodic characteristics. The first category shows no form of organization, the second is linguistically structured, although it does not yet contain any recognizable words.

POSTER no 4

EVOLUTION OF VOCAL CHARACTERISTICS IN THE HEARING CHILD AND THE DEAF CHILD IN THE FIRST TWO YEARS

Gabrielle Konopczynski   Shirley Vinter
Franche-Comte University
Besancon, France

Introduction:

The main aims of this poster session are threefold: - to follow the evolution of the vocal characteristics of the child to 24 months - to compare the hearing child and the profoundly deaf child -to have a new look at the maturation theory with the question: Is the evolution of the voice only a matter of maturation of the speech apparatus, or does the child build up his/her voice, while s/he is building up his/her language and social image?

Methodology:
-twelve hearing children and twelve deaf children were recorded in a natural environment

- the profoundly deaf group was divided into three subgroups (BIAP)
- two situations: solitary play with jargonic babbling, and social exchange with proto- language
- acoustic measurement of Fo
- introduction of two different notions:

-usual Fo (Fo-u), i.e., the height at which the voice is set naturally, when there is no intention of communication

- mean Fo (Fo-m), which is the medium Fo calculated from the full range of the child's vocal productions

Results:

1. Points common to the deaf and the hearing child.
- Fo-u was statistically the same in both hearing and deaf groups
- wearing or not wearing hearing aids did not change the deaf child's Fo-u
- Fo-u was stable from the age of 8, and did not evolve with age

2. Differences between the deaf and the hearing child.
It will be shown that the hearing children and the deaf children have different vocal behaviors. The hearing child uses a different type and height of voice in solitary babbling (he explores his full range and has unusual phonation types); and in interactive babbling he fits his/her range in a medium zone, with use of the modal voice only. On the contrary, after 6; the profoundly deaf child babbles only in interaction and the more profound his deafness, the less he babbles. When he is given a hearing aid, the babbling increases in quantity and in quality. Nevertheless, it stays poor; compared with the hearing child's babbling, there is no vocal exploration.

These results show that the child's voice does not depend only on the maturation of his speech apparatus. Although the vocal folds double their length during the second year, this has no strong effect on the child's Fo-u, which is well controlled, nor on the Fo-m which is used differently, depending on the situation and social environment.

POSTER no 5

TIMING PATTERN OF THE ONE-WORD UTTERANCE STAGE IN ONE HUNGARIAN CHILD

Ilona Kassai
Hungarian Academy of Sciences
Budapest, Hungary

This case study analyzes the timing patterns of the one-word utterance stage in Hungarian, a quantity based language. The subject was one girl of whom one hundred and one communicative utterances and thirty-one babbled sequences were analyzed on the basis of duration measurements of the vocalic segments.
The following conclusions were drawn:

1. Communicative utterances:
-phonemically short and long vowels were not yet distinguished by their duration, their mean duration being 190 ms.(phonemically short vowels) Vs 210 ms.(phonemically long vowels). The corresponding adult values are respectively 100 ms. vs. 205 ms.

- duration did not show any relation with either the utterance length or the position within the utterance as in adult language. With increasing number of syllables, the duration of child's vowels did not necessarily shorten. Just the opposite, it could even be longer. The same results were found for French (Konopczynski 1986). Similarly, final position did not systematically imply longer vowel duration.

- the span of variability in segmental duration amounted to 300%.

- in emotionally strongly marked speech, duration values, in agreement with adult language, were three or four times longer than in less marked or neutral speech.

2. Babbled sequences:
-showed far more longer vowel duration and varied timing patterns than communicative strings.

Thus it appears that the intention to communicate puts strong constraints on the realization of utterances. As, however, the child did not yet master the phonological rules underlying length contrast, not did she know the exact physical correlates of the mentioned contrast, she failed to produce clearly perceivable short and long segments.

POSTER no 6

DEVELOPMENT OF NASAL-VOWEL SYLLABLES IN THE FRENCH AND IN THE KOREAN INFANT: A LONGITUDINAL TWO CASE STUDY

Jung Sook Bae
Polytechnic Institute of Sevenans
Belfort, France

Recent studies have shown that the acoustic relationship between the murmur and the vowel at the nasal vowel boundary is highly informative for the m - n distinction. For the Korean infant, the other nasal and one vowel were added. The study is empirical, and consisted in the observation of the utterances of one French and one Korean infant between 7 and 44 months . The nasal-vowel syllables were extracted from a recorded corpus: eight different types of nasal-vowel syllables were found for the French infant and ten types for the Korean infant. They were submitted to an auditory and an acoustic analysis.

Both general and language specific effects emerged from the longitudinal study. Initial similarities (at 7 months) in the nasal repertoires of both infants, increasing control in producing target F1 and F2 values, and developmental changes in babbling characteristics over time seem to reflect general patterns of each language system. The differences in the production of the infants appear to be due to differences of the corresponding language environments. Shifts in the babies sound repertoires as they become older reflected phoneme frequencies in the adult language. The French baby's production showed significantly more final lengthening, which is characteristic of the French timing pattern, than the Korean baby's production. The acoustic analysis also revealed that there is considerable information in the vowels' wave form for identifying nasal sound place of children's articulation during language acquisition.

POSTER no 7

LANGUAGE OUTCOME FROM A CONSONANT-VOWEL DISSOCIATION IN SINGLE-WORD PRODUCTION: DATA FROM TWO CASE REPORTS

Marie Le Normand   Shirley Vinter   Gabrielle Konopczynski
Franche-Comte University
Besancon, France

Recent empirical studies of single-word production in children with Specific Language Impairment (SLI) have moved away from a "linguistic disorder" and concluded that this language disorder may reflect a more general "cognitive deficit or executive dysfunction". Both explanations, however, ask the question about what happens phonetically during single-word production failure and event babbling period.

Two SLI spectrum cases with single-word production abnormalities - a specific consonant-vowel dissociation- are reported and a phonetic/praxis explanation for a subset of their deficits is provided. Both children were severely impaired on naming, repetition tasks (Chevrie-Muller et al., 1988), and continuous speech in free play situation (Le Normand, 1986,1988), producing a substantial number of responses indicative of speech processing breakdown.

A speech model analysis (Konopczynski 1986, Vinter 1985) including categories of syllable lengthening and pausing is used to explain this unusual impairment. An integration of this model, illustrated by longitudinal data over a two year period, shows a good language outcome of these two SLI children.

POSTER no 8

FROM BABBLING TO FIRST WORDS: A CASE OF A CHILD DECANNULATED AT 8 MONTHS

Gabrielle Konopczynski   Shirley Vinter
Franche-Comte University
Besancon, France

Marie Le Normand   V. Granboulan
Infant Neuropsychology Laboratoary   Salpetriere Hospital
Paris, France   Paris, France

Although good prognosis with treatment has been reported (Kamen et al., 1991; Hawskins et al., l986; Hill & Singer, 1990; Locke & Pearson, 1988; Simon & Goman, 1989), children with tracheostomy appear to improve their language very slowly and sometimes never achieve normal intelligible speech (Bleile et al., 1993). The debate concerning the acquisition of speech and language of tracheostomized children remains limited because clinical studies do not provide precise linguistic analysis of follow-up data, especially from babbling to first words.

The child reported here was premature (G.A: 26 weeks, B.W: 1600gr.). He was hospitalized 123 days in a pediatric intensive care unit (ICU). He presented respiratory distress, with interstitial emphysema leading to bronchopulmonary dysplasia (BPD). He was tracheostomized at the age of 5 months and hospitalized because of prolonged mechanical ventilation. Decannulation was possible at 8 months, and he returned home under oxygen therapy with daily chest physiotherapy. Neuromotor abnormalities were detected during hospitalization and after discharge. Clinical and psycholinguistic examination showed evidence of (a) no hearing loss (b) no intellectual impairment (c) an average level of fine manual motor skills (d) no behavioral disorders, and (e) a normal language comprehension and production.

Longitudinal data of his speech and language production following decannulation has been analyzed phonetically and acoustically in great detail and compared with a normally developing child, from the age of 8 months to the age of 2 years. The findings provided some evidence of a delay in prosodic (rate of canonical syllables production) and segmental (size of consonant inventory) output, but not in word production (rate of different words in a standardized play situation confirmed by the CDI inventory, cf. Fenson et al., 1993).

Despite the important neuromotor deficit and the prematurity of this child, such findings support the notion that babbling experience and vocal self-stimulation from 8 months on may promote the emergence of the first words appropriate to cognitive abilities at the age of 2.

POSTER no 9

POSSIBLE GATEWAYS TO LANGUAGE AND SPEECH IN THE PROFOUNDLY DEAF CHILD

Shirley Vinter
Franche-Comte University
Besancon, France

This study analyses the vocal productions of twenty one profoundly deaf children (international BIAP classification) between 14 and 31 months in order to investigate the different stages these children pass through from the production of their first sounds to the first word combinations.

The results showed that:
-all the children produce sounds, however profound their hearing loss, whatever help hearing aids may or may not provide. Thus, the production of sounds does not seem to be related to auditory abilities.
- however, the appearance of the first syllables depends on the acoustic information the child receives. Canonical babbling with CV structures appears late in the profoundly deaf child of the first group (mean hearing loss = 90dB). It can be absent in the vocal productions of the children who have a hearing loss between 90 and 100 dB. -However, in nearly all of these cases, the wearing of hearing aids, which brings more acoustic information, helps the child to improve the quantity and the quality of his/her babbling.
- the temporal structure of the French language, mainly characterized by a strong final lengthening, is acquired very progressively, but not all deaf children acquire it. It appears that its presence or absence does not depend on the hearing loss, but on other factors. Its acquisition is a reliable cue for the entrance into the syntactic stage of language.
- the absence of canonical or even marginal babbling in the very profoundly deaf child (hearing loss>110 dB) does not mean an absence of speech and/or language later on. Some of these children acquire a good language level, only their speech is problematic: they very often remain unintelligible, because of the lack of prosodic and segmental adequacy.

It can be concluded that there are different gateways to language and speech in the deaf child.

WEDNESDAY   Session B: SIGN LANGUAGE
11:10 - 11:40

SIGN LANGUAGE ACQUISITION AND MOTOR DEVELOPMENT IN INFANCY

John Bonvillian   Herbert Richards   Ibrahim Saah
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Charlottesville, VA, USA

In the present study, we examined patterns of language acquisition and motor development as children learn to sign. In this investigation, measures of language growth, nonsign communicative gesture production, and gross motor development were obtained during infancy. The data were analyzed longitudinally to learn more about: (a) development in each of these three domains; (b) how the diverse measures we collected were interrelated.

The data were obtained from two previously completed studies of sign language acquisition. The focus of these studies was the development of 24 young, sign-learning children (9 boys and 15 girls). Three of the children were deaf. There were no other discernible disabilities among the children. Nineteen of the children had two deaf parents; five had one deaf and one hearing parent. All the parents were fluent signers, and all said that a sign language was the principal means of communication at home. The data were collected during regular monthly home visits. These visits typically commenced prior to a child's first birthday and were continued for a period of over six months. During these visits, videotape records were made of the child's sign production, parent-child communicative interactions, and normal play. The home visit data were supplemented by diary accounts kept by the parents of their children's sign production.

The data were reliable in that early performance in each domain predicted later performance in the same domain. The data analysis also revealed several distinct trends:

First, children who attained early language milestones at younger ages continued to acquire signs at a faster rate throughout infancy.

Second, those who attained early motor milestones (e.g., sitting, crawling) at younger ages acquired subsequent gross motor skills more rapidly.

Third, with rare exceptions, correlations between measures of sign language acquisition and motor development were small and not significant.

Fourth, for nonsign communicative gestures (e.g., showing, communicative pointing), acquisition of initial communicative gestures tended to predict the production of later communicative gestures.

Finally, communicative gesture production moderately predicted both sign and motor milestone acquisition.

The findings are discussed with respect to domain specific development, interrelationships across domains, and maturational unfolding.

WEDNESDAY   Session: SIGN LANGUAGE
11:10 - 11:40

ITALIAN GESTURES, SIGNS AND WORDS IN A HEARING CHILD OF DEAF
PARENTS

Olga Capirci   Sandro Montanari   Virginia Volterra
Istituto di Psicologia, C.N.R.
Rome, Italy

This study explores early language acquisition in a hearing child of deaf parents, observed monthly in the first two years of life.

Over the past 20 years, there has been an increasing interest in the process of bilingual and second language acquisition. Most studies focus on the process by which a child becomes bilingual in two or more spoken languages, while there are very few studies on bilingualism in two different language modalities: spoken and signed. Some such studies have dealt only with the spoken language production of hearing children of deaf parents, and a few studies have considered the bilingual acquisition process in these children, or also in deaf children of deaf parents.

The aim of the present study is to contribute to a fuller description of early bilingual development in a hearing child of deaf parents by including gestural production as a separate mode alongside Italian Sign Language (LIS), spoken Italian, and simultaneous signed-spoken communication. The child was observed monthly in the first two years of life. His parents are both deaf and in their linguistic production they use three different modes: Italian Sign Language (LIS), spoken Italian and simultaneous communication. Each session was videotaped at home and lasted approximately 45 min, during which the mother was instructed to interact and play with her child as she

normally would. All communicative gestures, signs and words were transcribed from the videotapes. Gestures produced were classified as deictic or representational.

Data collected on the child's production are analyzed in order to identify types and tokens of communicative gestures, words and signs either as separate or as combination items. The total language production of the child is compared with data on gestural and vocal production of a hearing child of hearing parents (collected with the same procedure) and with data of 12 children observed at 16 and 20 months of age. Our results will be compared with those of previous studies in order to achieve a clearer description of the interrelation between gestural, signed and spoken productions in bilingual development of children of deaf parents.

WEDNESDAY   Session B: Sign Language
11:10 - 11:40

THE SIGN LANGUAGE AND LITERACY CONNECTION IN DEAF CHILDREN AND ADOLESCENTS

Philip M. Prinz   Michael Strong
San Francisco State University
San Francisco, CA, USA

The acquisition of language and literacy (reading and writing) arguably represents the most significant problem facing deaf children. A review of the literature indicates there is a tremendous need for understanding to what extent knowledge of a potentially fully accessible language such as American Sign Language (ASL) might facilitate literacy acquisition. Previous research comparing deaf children from deaf families (DP) with those from hearing families (HP) has led to hypotheses that sign language proficiency might be related to literacy acquisition, but these hypotheses have not been adequately tested. The role of cognitive abilities further complicates the question, since DP have also been shown to have higher performance IQ's than HP. The present study, which is funded through a field-initiated research grant from the U.S. Department of Education, specifically focuses on the relationship between ASL and English literacy development. Subjects include 160 deaf students aged 8 to 15, enrolled at a residential school for the deaf. ASL skills are measured using a specially devised ASL production and comprehension test, administered by videotape and requiring a non-verbal response. English literacy is measured using selected subtests of the *Woodcock-Johnson Psycho-Educational Test Battery-Revised (WJ-R)* and the *Test of Written Language (TOWL).* *The Matrix Analogies Test* is used to measure performance IQ and its potential intervening effects are ruled out. In the study, two research questions address

the synchronic and diachronic relationships between proficiency in ASL and English literacy, and a third research question investigates the age at which ASL assumes its greatest role in facilitating gains in English literacy. The current presentation presents pilot and first year findings. The results describe the relationship between reading and writing and proficiency in ASL. The results of this investigation are of particular importance to educators looking for research that can inform them in their decisions regarding the adoption of new programs (such as those following a bilingual model).

WEDNESDAY   Session B: SIGN LANGUAGE
11:10 - 11:40

A COMPARISON OF FORMANTS IN HEARING AND HEARING-IMPAIRED HEBREW SPEAKING CHILDREN

Judith Rosenhouse
The Technion, I.I.T.
Haifa, Israel

Claire Gelinas-Chebat
University of Quebec
Montreal, Quebec, Canada

Acoustic-phonetic speech production features in Hebrew-speaking Hearing (H) and Hearing Impaired (HI) children still present many un-answered questions. In this paper we describe some data yielded by our experiments with the above two groups of speakers - H and HI children. H subjects included 5 kindergarten children (age-range 4-5 y.), and 2 school children (age range 7-8). The other group included 9 severely HI school children (age range 7-11 y.). All were from the region of Haifa. The children were recorded naming objects shown to them on colored picture carts. We analyzed the five Hebrew vowels /i, e, a, o, u/ which occurred in 10 syllables from 6 Hebrew nouns, 5 bisyllabic and one trisyllabic, of the objects in those cards.

In a previous study (Rosenhouse & Gelinas-Chebat, 1995) the features of pitch and duration of these words were described. The present study focuses on the formant features in the same linguistic material. Statistical analysis of the formants in the words was done taking in consideration differences between unstressed and stressed vowels in the test words and between the two groups (H vs. HI).

The findings of the analysis are discussed and compared from the following aspects: Hebrew speaking H children of different ages; Hebrew speaking H vs. HI children; and

Hebrew speaking children's formants vs. those of matching children native speakers of other languages. This comparison should be phrased carefully since vowels, and their formants, also reflect language-specific articulations.

Some findings are the following: As would be expected, there are significant differences between H and HI Hebrew-speaking children's formants. HI children's formants are usually higher than those of the H children. Formants reflect mainly the resonance of the sound wave in the vocal tract above the glottis. Yet higher F 1 and F2 values of the HI children also correlate with their higher pitch (F0) values (found in Rosenhouse & Gelinas-Chebat, 1995).

There are also differences in formant values between vowels occurring in unstressed and stressed syllables - usually (in both groups) the stressed vowels' formants are somewhat higher than those of the unstressed vowels. In addition, certain vowels of the HI children show larger deviations from the H's formant "norms". Curiously enough, some stressed vowels in the H speakers' material show lower absolute values in some of the formants than the parallel unstressed vowels. This phenomenon does not appear to the same degree in the HI group, nor in the same vowels. Standard deviations between groups are usually smaller in the H than in the HI. But this is not always the case when stress is also considered.

WEDNESDAY   Session B: SIGN LANGUAGE
11:10 - 11:40

STAGES OF PHONOLOGICAL DEVELOPMENT IN HEARING IMPAIRED INFANTS

Barie Dalgleish
The University of Queensland
St. Lucia, Queensland, Australia

Spontaneous and elicited vocalizations of three profoundly hearing impaired children were gathered longitudinally over varying periods between the ages of one and three or four years. Narrow phonetic transcriptions were prepared from videotaped recordings of interactions with their mothers and/or preschool staff. Four stages in the development of vocal utterances were indicated. The Early Glottal Stage was characterized by strings of vowels interspersed with glottal stops. Glottal fricatives also occurred, some of which were ingressive. Supraglottal consonants included stops and nasals. Creaky voice was the only common voice quality, although there were some examples of nasalization. In the Glottal Expansion Stage, the use of supraglottal

consonants increased, so that utterances with a mix of glottal and supraglottal consonant segments were more frequent. Such utterances showed greater phonetic diversity, but creaky voice remained the dominant voice quality. The Oral Stage was characterized by a reduction in glottal stop output and increase use and diversity of supraglottal segments. Early imitations of speech occurred, but segment selection was inaccurate. Utterances produced with creaky voice were less frequent. In the Imitative Stage the frequency of speech-like vocalizations grew. Segment selection in imitations of words and phrases became more accurate. Some recognizable spontaneous productions occurred, as well as intermediate forms which have been classified as delayed imitations. There were marked individual differences among the children both in terms of their vocal productivity and their rate of progression through these stages.

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

AN EXAMINATION OF THE ENGLISH MORPHEME BE IN SPECIFIC LANGUAGE IMPAIRMENT

Patricia Cleave   Mabel Rice
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Halifax, NS, Canada   Lawrence, KS, USA

This study examined the acquisition of the morpheme _BE_ in English, focusing on the influence of contractibility and linguistic form and the relationship between copula and auxiliary forms, using two databases. One consisted of samples collected from children with specific language impairment (SLI group) and normal language learners at equivalent MLU levels (ND group). The second was a longitudinal database involving children with SLI.

Three levels of contractibility were examined. In _Contractible_ contexts, contraction of the _BE_ form was possible (e.g., He's running). In _Syntactically Uncontractible_ contexts, contraction was impossible due to the syntactic frame (e.g., Is that mine?). In _Phonetically Uncontractible_ contexts, contraction was impossible due to the phonotactic constraints of English (e.g., The bus is late.). Contractible contexts were produced more accurately by both groups. There was no difference between the two forms of uncontractibility. There were no interactions between language status and contractibility suggesting that contractibility influenced both groups equally.

The Surface Account of the morphological difficulties of SLI (Leonard, 1992) proposes that morphemes with low phonetic substance will be particularly difficult for children with SLI. The findings suggest that the increased phonetic substance of uncontractible forms was not facilitative for the SLI group.

The children in both groups produced copula forms more consistently than auxiliary. There was no interaction between _BE_ type and language status. The two forms were highly correlated in both data sets. Overt errors, incorrect productions that were something other than an omission, were examined. The errors seen in copula and auxiliary contexts did not differ in proportion. The errors were examined for the patterns reported by Stromswold (1991). Although the specific errors were rare, the ND group did follow the pattern predicted suggesting that they had the categories lexical and auxiliary verb. For the SLI group, the results were mixed.

The overt errors produced by the two groups were compared. The groups did not differ in proportion or type of error. Furthermore, children who were at higher levels of accuracy produced proportionally more overt errors to omissions than children at lower levels. The Extended Optional Infinitive (EOI) account (Rice & Wexler, 1993) predicts that children with SLI will not produce more overt errors than normal learners. In contrast, as noted by Rice & Wexler (1993), missing constraints accounts (Clahsen, 1992; Gopnik, 1990) predict that children with SLI will differ in terms of overt errors. The lack of group differences in errors is consistent with the EOI account.

The analyses examining the influence of linguistic form are currently underway. The results will be discussed in relation to accounts of morphology in SLI.

References

Clahsen, H. (1992). Linguistic perspectives on specific language impairment. *Theorie des Lexikons, Arbeiten des Sonderforschungsbereichs*, 282, 37,1-31.

Gopnik, M. (1990). Feature blindness: A case study. *Language Acquisition*, 1,139-164.

Leonard, L.B. (1992). The use of morphology by children with specific language impairment: Evidence from three languages. In R.S. Chapman (Ed.), *Processes in language acquisition and disorders*. St. Louis, MO: Mosby Year Book.

Rice, M. L. & Wexler, K. (1993). *Morphosyntactic abilities of SLI children* (Grant # 1 RO 1 DC01803-OIAI). Washington, D.C.: National Institutes of Deafness and Other Communication Disorders.

Stromswold, K. J. (1991). Learnability and the acquisition of auxiliary and copula "be". *ESCOL*Ohio State University, Columbus, OH.

VERBAL MORPHOLOGY IN SPECIFICALLY LANGUAGE IMPAIRED CHILDREN

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Specifically language impaired children show a mild to moderate deficit in a wide range of language areas, but the acquisition of morphology seems to be especially problematic for these children.

The Norwegian verbal inflection resembles that of English, with two main inflection types, *strong* and *weak*. In both languages, the weak verbs are characterised by the presence of an alveolar suffix in the past tense and past participle, and the strong verbs by the absence of such a suffix. There are, however, interesting differences between these two languages:

i. English has only one weak inflectional class, whereas Norwegian has two. ii. In Norwegian, the word tone in the present tense is a salient marker of strong verbs.
ii. In Norwegian, the stem of the verb is only used in the imperative (for most verbs), whereas in English the stem also has the same form as the infinitive and the present tense (except the third person singular).

Most studies of the acquisition of verbal inflection, both normal and deviant, have been done on English speaking children. On the basis of the differences sketched above, it is interesting to see whether the results from these studies are valid also for Norwegian speaking children.

On the assumption that input factors like frequency, both token frequency of the verb and type frequency of the verb class, and phonological properties of the verbs and verb classes, are important for acquisition of past tense inflection, Ragnarsdottir, Simonsen, & Plunkett (to appear) designed an experiment to test their possible effect, and how this may change over time. In their study, they tested normally developing children at the age of 4, 6,. and 8. The study reported here uses the same experiment to test specifically language impaired children at the age of 6 and 8. It is interesting to find out in what respects the language impaired children differ from the normally developing ones. Are they merely delayed, so that the data from the impaired 6 year olds resemble that of the normal 4 year olds, or do they use different strategies altogether? And if they use different strategies, what are these strategies like? The answers to these questions will give us important information, which can teach us more both about normal and deviant language acquisition.

CAN A "SINGLE MECHANISM" ACCOUNT FOR THE REPRESENTATION OF PAST-TENSE MORPHOLOGY IN GRAMMATICAL SLI CHILDREN?

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This paper contributes to the debate between those who propose that a single mechanism vs a dual mechanism account underlies knowledge and use of regular and irregular past tense marking. In this paper we investigate the representation of past tense morphology in a subgroup of 12 Grammatical SLI children (aged 9:4-12:10) and 36 normally developing, language ability (LA) matched control children (aged 5:5-8:9). Three tasks were used: 1) an elicitation production task, 2) a grammaticality judgement task, and 3) a narrative task, which provided data of spontaneous use of verb forms in past tense context. In tasks 1& 2, the children were asked to produce or judge 60 verb forms in a past-tense sentence context for regular (*walk-walked*) irregular (*swim-swam*), novel regular (*plam-plammed*) and novel irregular (*strink-strank*) verbs forms. In the judgement task each verb was presented on different occasions in three forms: the stem, .regularly inflected, and irregularly inflected (*e.g., walk walked wok*).

Analysis of the responses from the production task revealed that the LA control groups showed a consistent and significant advantage or preference for regular rather than irregular past tense marking on real regular and nonce verbs.

The SLI children showed a significantly different pattern of past tense marking for real and nonce verbs. First, the SLI children showed a very low level of marking past tense for real and nonce verbs (8-22%) and significantly lower that all three LA control groups. The SLI children did not show the advantage for regular past tense marking. Further analysis of correct responses to the real verbs, taking into consideration frequency (high, low), revealed a significant Group by Frequency interaction. The LA controls showed a significant frequency effect for irregular words but not the regular verbs--correct past tense forms for the low frequency regular verbs were produced as well if not better than the high frequency regular verbs. In contrast, the SLI children showed an overall significant frequency effect with more correct responses for high than low frequency verbs.

In the judgement task, in contrast to the LA controls, the SLI children accepted the majority of stem verb forms and overgeneralization of irregular verbs in past tense contexts. Thus, the SLI children do not appear to have a "blocking mechanism" which would rule out these overregularizations. These data are consistent with their spontaneous speech in which stem forms, overregularizations and correct irregular past tense forms may be used (often by the same SLI child) in past tense contexts.

The findings indicate that the SLI children have a syntactic deficit for marking tense and that their morphological representation of the past tense of regular and irregular verbs is qualitatively different from normally developing children. The implications for single vs dual mechanism accounts and the role of syntax in accounting for the data and in the development of regular and irregular morphological representations will be discussed.

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

CLINICAL AND LABORATORY FEATURES OF LANGUAGE REGRESSION IN PATIENTS WITH LANGUAGE PROBLEMS

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Spontaneous gradual or sudden regression of language may occur in some children who previously have had either normal or mildly delayed language, followed by some slow progression. Not infrequently EEG (electroencephalograph) abnormalities and/or epileptic seizures and behavioural abnormalities are associated with the loss of previously acquired language, which is then known as Landau-Kleffner syndrome.

This study aims to elaborate some of the clinical and laboratory features of this curious phenomenon of language regression.

All patients were referred to the Child-Neurology Unit because of having the main complaint of some language difficulties such as delay in language onset or immature or deviant language. The patient group were divided into two subgroups, one of them (R), showing the sudden or gradual language regression during their language development and the other one (D), showing a mild to severe language retardation. The total number of patients included 83 patients, 58 boys (70 %) and 25 girls (30 %). The group R included 34 patients [38 boys (77%) and 11 girls (23%)]. Studied variables were sex,

consanguinous marriage, neurological examination, perinatal event, order of birth neurological examination, radiological features, EEG features, behavioral problems, past medical history, family history, bladder and bowel training, presence of epileptic seizures and seizure variables and language parameters such as expression, comprehension, pronunciation and age at cessation of language. Chi-square analysis were used to compare the two groups and to find the significance of differences between the groups according to studied variables.

Regarding the studied variables, behavioural abnormalities were significantly ($p<0.01$) more in the group R. The first living child of the family was much more affected by the language regression ($p<0.005$). The sharp elements in the EEG were significantly ($p<0.001$) more frequent in the group R and the subcortical discharges were more frequently seen in the group R($p<0.025$). The other variables studied were insignificant.

In the group R most of the patients had regression before age 3 (80 %). Language regression before seizure onset occurred in the 25 % of patients; after seizure onset it occurred in the 44 % of patients and seizure onset and language regression occurred simultaneously in the rest.

This study indicates the importance of studying the phenomenon -of language regression in relation to the behavioral regression (like autistic regression) and EEG abnormalities which actually might all be the result of the involvement of a common neuroanatomical substrate by various different causes.

RARE EVENT TRANSACTIONAL MODEL OF LANGUAGE DELAY

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This paper/poster will discuss a new model, a Rare Event Transactional Model of language delay. Data, competing theories and theory-driven multimedia language treatment software will be discussed. The new model draws upon Transactional theory with its emphasis on cycles of transaction between individual learners and their available conversational partners, and Rare Event Learning theory with its emphasis on language advances depending on relatively rare episodes in which a "tricky mix" of supportive learning conditions happen to converge the central components follow.

1. SLI and other forms of language delay are usually produced by multiple factors but with somewhat different factors operating in different children.

2. Individual children's strengths and weaknesses in diverse processing capacities are important contributors to how interactions with language partners dynamically unfold across developmental periods, and so produce indirect effects on language delay or language acceleration.

3. Strengths and weaknesses in diverse processing capacities are important contributors directly to success of processing some input well enough to trigger language advances. Among the most relevant cognitive processes are working memory abstractions of phonological, syntactic, lexical, and pragmatic structures, regulation of working memory contents, and long-term memory encoding and retrieval.

4. Input "gaps" contribute to language delay when there are relatively few stage-relevant challenges and when there are relatively few discourse facilitators of processing (such as placement of challenges in recasts).

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

LANGUAGE SCREENING AND ASSESSMENT TOOLS FOR SPANISH SPEAKING CHILDREN

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The purpose of this paper is to present three language measurement instruments developed in Mexico, all of which have been carefully designed and/or adapted to the Spanish language and to the Mexican culture.

Two assessment tools and one screening test were devised and standarized to be used in different settings with Spanish speaking Mexican children; the Bateria de Evaluacion de la Lengua Espanola (BELE- DGEE/SEP, 1988-Spanish Language Assessment Battery), the Prueba para la Evaluacion del Lenguaje en Ninos Preescolares (PELEP-Flores & Romero 1995, Preschool Language Assessment Test) and the Sondeo de Desarrollo del Lenguaje (SDL, Carmi & Romero, 1995, Language Development Survey-Spanish version).

These instruments have been piloted, adapted and standarized in Mexican populations. Also several validity and reliability studies have been conducted using these instruments, which let us affirm that they are adequately structured and appropriate to measure linguistic abilities in children.

The BELE is a very complete language battery that can be utilized with children between 3 and 11 years. It includes seven tests that cover aspects of all linguistic levels; phonology, semantics, syntax and pragmatics. This battery can be administered in approximately 1 1 /2 to 3 hours; it requires recording and transcribing. All tests offer quantitative and qualitative data that have proven to be very useful in differential diagnosis of language as well as research.

The PELEP is a shorter test that also covers selected aspects of all linguistic levels. It was designed to test children ages 4 to 6 years, and to be used mainly as an eligibility criteria for admission to special education public services. It can be administered in 80 minutes or less. It only offers quantitative data; however a qualitative analysis is also possible.

The SDL is a screening tool to identify expressive language delay and has been standarized in a sample of Mexican children ages 15 to 31 months. This instrument was adapted after the LDS (Rescorla, 1989). This instrument serves as a gross indicator of expressive language development for early identification of potentially delayed children. It is a parent report and can be administered in 15 minutes or less. The SDL is an adequate instrument for use in pediatric settings and day care centers.

These instruments have just recently been developed and have provided specialists in the area of language disorders and child care professionals in Mexico with reliable and culturally appropriate means to measure language development. Further research with these instruments is in progress.

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

LANGUAGE DEVELOPMENT IN SPANISH CHILDREN WITH WILLIAMS SYNDROME

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The search of synchronic specificity in the linguistic development of children with mental retardation has raised the question. of certain dissociation between language and cognitive functions in Williams Syndrome. Beyond its relevance to the assessment and intervention on child language disorders, the study of the linguistic characteristics of WS children compared to other etiological groups and non-retarded children could emphasize the importance of theoretical issues in Child Language and Cognition.

In this poster we report an ongoing longitudinal research project about linguistic and educational aspects of WS Children in Spain. It is a preliminary investigation being its main objectives the determination of the particular linguistic features of language development in Spanish children with WS and the setting of the bases for further educational intervention.

A group of six WS children was selected from the medical records at the University Hospital of Oviedo and was paired with a group of nonretarded children. All speech data have been collected from spontaneous speech samples of mothers interacting with

their children. The subjects have been registered in different conversational situations at home and the speech samples obtained have been coded and analyzed with the tools provided by the CHILDES Project. Measures have been made and analyses have been carried out on phonological, morphological, syntactic and lexical levels as well as on discourse and conversational aspects.

Results are discussed in order to establish a linguistic developmental profile of Spanish WS children. At the same time comparisons are made with previous data of English-speaking WS children. We also provide a final discussion on the syndromic specificity of language development in WS children and the theoretical and practical implications of that concept.

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

FAST MAPPING NOUNS AND VERBS BY CHILDREN WITH DOWN SYNDROME

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The hypothesis that memory difficulties constrain phonetic elaboration of noun and verb representations in children with Down syndrome after a single word encounter was investigated. Ten individuals with Down syndrome (M age =12;1; Range = 8;11 to 16;4) and 10 normally developing, mental-age matched controls served as subjects. Each subject participated in twenty fast mapping procedures involving first an exposure task, then a production probe, and finally a comprehension probe. Half the tasks involved fast mapping of nouns (object labels), the other half verbs. Comprehension probes varied in phonological similarity relative to exposure stimuli (Table 1). Probe (e), being maximally segmentally different from the exposure stimulus, served as a control measure. Correct identification of the associated object or demonstration of the appropriate action following the other changed probes (b through d) was taken as evidence for the formation of phonetically incomplete lexical representations in memory. It was predicted that children with Down syndrome would tolerate changed probes to a greater extent than would controls, thus demonstrating the impact of memory difficulties in this population upon one aspect of language acquisition.

Data is presently available for the group with Down syndrome. The control data is in the process of being collected. For the children with Down syndrome, comprehension exceeded production; nouns were comprehended more often than verbs; and comprehension probe changes (relative to the exposure stimulus) involving initial consonant clusters or stressed vowels were tolerated more than those involving word-final consonants or all word segments. Group differences and clinical implications will be discussed.

Table 1.

Comprehension probe conditions

Probe Condition

(a) All phonemes in the exposure and probe stimuli match

(b) Initial cluster reduced to singleton

(c) Final consonant changed in place of

(d) Stressed vowel changed in tenseness, to a spectrally similar vowel

(e) No phonemes in the exposure and probe stimuli

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

USE OF THE EPISTEMIC MODALITY IN AUTISM; EVIDENCE OF META-REPRESENTATIONAL DEFICITS ?

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It is now about half century ago that the syndrome of autism was formally introduced into the professional literature. Ever since it has been a source of intrigue and speculation. Numerous theories have been launched to account for apparent oddities in

the social and communicative behavior of individuals with autism, their mental rigidity and their reliance on highly stereotyped forms of behavior.

One recent and quite influential theory about the autistic syndrome, the so called the Theory of Mind hypothesis attempts to explain the behavioral idiosyncrasies by reference to non-visible mental processes. They claim that it is the capacity to think about their own and other people's states of mind and to explain human behavior on the bases of these reflections that is deficit in autistic people. This deficiency is thought to be caused by the absence or malfunctioning of a very specific mechanism that is specialized in the metarepresenrtation of inflectional behavior. Because of such a malfunction it is argued that autistic people will not talk about mental states, nor reflect on them, nor take this sort of reflections into account while communicating.

This study was designed to test the assumptions about verbal behaviors put forward by the Theory of Mind hypothesis through in depth analyses of the conversations of four verbal and relatively high functioning individuals with autism in naturalistic contexts. The samples obtained were analyzed both qualitatively and quantitatively for use of constructions that require metarepresentational abilities, such as, the use of epitemic modal expressions and descriptions of the thought processes involved.

Analyses of the accumulated data suggests that non retarded autistic individuals do not differ significantly from established norms in the use of the epistemic modality. Apparently, they are able to engage in the mental processes of metarepresentation, and do form a Theory of Mind. The fact that the one iondividual whose verbal behaviors only provided partial evidence of the targetted expressoins also the exhibited the lowest level of overall intellectual functioning suggessts that meta representational skils are linked to level of intelligence.

The relative inflexibility of language use, particularly with regard to the use of epistemic auxiliaries, further suggests that non standard strategies are used to accomplish the mental acrobatics of meta representation. It is argued that deficits in metarepresentation and in the related formation of a theory of mind are too simplistic to account for the communicative behaviors observed. Interpretations of autistic language symptomalogy should be broadened to explain apparent limitations in motor planning/or executive control.

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

ABOUT THE LANGUAGE OF PSYCHOTIC CHILDREN

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Language disorders are crucial for the diagnosis of psychosis. In spite of this, a detailed description of the language of the psychotic child is still missing. This study is part of a project whose aims are: to gain a detailed picture of the syntactic and discoursive features of psychotic children and to explore the relationship between these features and a specific set of cognitive abilities. Six Catalan children, three boys and three girls, aged seven to twelve diagnosed as psychotic participated in the project. All the children were brought up in Barcelona, a bilingual community with two official languages Spanish and Catalan. Children were screened for their IQ and had to perform a number of tasks to tap their abilities in the domain of writing, number notation and problem solving. They were video-taped in class and during breaks to observe their social and communicational behaviour. For this study, children were individually interviewed in the context of a playful situation and prompted to produce different types of discourse (e.g. *to tell a story; to make a joke*). Production was analyzed for syntax, organization and for the pragmatics of code switching and deixis. Some children produced differentiated discourse for lies, jokes, stories, and talk, both from a syntactic and organizational point of view; others produced the same undetained pseudo-narrative. None of them produced many instances of code switching within the boundaries of a particular piece but their use of deixis was very problematic and produced the effect of *unanchored* texts. The relative incidence of bilingualism, development and pathology on these features and their meaning for a characterization of the psychotic child's language will be discussed.

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

PHONOLOGICAL WORKING MEMORY IN CHILDREN WITH SPECIFIC LANGUAGE IMPAIRMENT

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It has recently been recognized (although not well understood) the central role played by phonological Working Memory (WM) in normal language acquisition. Learning new words in experimental situations, repeating unfamiliar sound strings, are tasks in which phonological WM, through the operations of phonological coding and articulatory rehearsal, has proved to be crucially involved (Gathercole, Baddeley, 1990a).

In the light of these findings it has been hypothesized that children with developmental language impairment have poor phonological memory. While a few studies have in fact demonstrated reduced WM abilities in children with Specific Language Impairment (SLI), the nature of the relationship between WM and language problems is still debated: while some authors attribute a causal role to the poor phonological memory (Gathercole, Baddeley, 1990b), others view the memory deficit as a consequence of the language problems (Snowling et al. , 1991, Raine et al. , 1991); a third position maintains that the nature of the relationship is correlational (Van der Lely, Howard,1993).

Aim of our study is to contribute to the current debate, through an analysis of WM abilities in a group of 13 children all diagnosed as affected by SLI (DSM IV, 1994) of a restricted range of age (5;0-5;1 1, mean age = 5;5 years) and of normal intelligence (mean non verbal I.Q. = 112, range = 98-125). Mnestic abilities have been evaluated with a test of serial recall of words varying for length, phonological similarity and frequency. Control data have been collected on normal children by 4 years of age.

The results are in favour of a WM deficit (2 s.d. from normal controls of the same age) in children with SLI; however, the functional mechanisms of the WM system, according to Baddeley's model (1986), are not different in SLI and normal children; the effects of phonological similarity, word length and frequency are all statistically significant and no interaction between groups has been observed for these effects.

A comparison, of SLI and normal children matched for "language age" on the basis of a standardized measure of expressive vocabulary (Brizzolara et al., 1989), shows that the two groups have a comparable mnestic performance.

Our data confirm the existence of a relationship between WM and language acquisition; the relationship is particularly stringent with expressive lexical abilities; the nature of the relationship between lexical abilities and WM appears to be not causal-unidirectional, as postulated in previous studies (Gathercole, Baddeley, 1993, Baddeley et al. ,1988, Papagno, Vallar,1992), but interactive, as supported by more recent data (Van der Lely, Howard, 1993; Gathercole, in press).

THURSDAY   Session A: LANGUAGE DISORDERS
16:00 - 16:30

SUBTYPING SPECIFIC LANGUAGE IMPAIRMENT ACCORDING TO MULTIDIMENSIONAL LINGUISTIC PARAMETERS

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Antonella Giorgi   Lucia Pfanner   Barbara Sbrana
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As is well known the clinical category Specific Language Impairment (SLI) covers a broadly defined condition of delayed or impaired speech which shows a wide range of variation in both the associated factors and the linguistic manifestations of the' disorder. Attempts have been made to provide finer subtyping on the basis of both dimensions, however, as for what concerns the linguistic side, proposals are still bound to classify SLI along the traditional grammatical domains (phonology, morphosyntax and lexico-semantics). By contrast, clinical experience and current theorizing suggest that each subtype, especially the one involving the acquisition of morphosyntax, might include significantly different deficits and outcome.

In the present work we will present an attempt to a detailed linguistic subtyping of SLI. The sample was carefully selected according to current international diagnostic criteria (I.C.D.-10, DSM 4) and it consists of ten children followed for about three years up to the school age. A multilevel linguistic evaluation was repeatedly performed in order to test phonological, morphosyntactic and lexical abilities. Specific measures were

obtained through standardized tests of grammatical and lexical comprehension, naming, elicited production (repetition and other) and the evaluation of spontaneous speech production.

The results suggest the existence of two broad types of disturbance having different prognostic profiles: one type showing a phonological and/or morphosyntactic disorder which is bound to the sole expressive modality, one type showing a deeper deficit which also involves the lexical component and presents a variable degree of impairment of receptive language. Recovery varies significantly according to type and number of abilities specifically impaired with a trend for a better recovery in children whose deficits are bound to the sole expressive modality and spare the lexical-semantic domain.

Within the two main groups other distinctions can be made, however, rather than attempting to a finer classification our main concern will be interpreting the data on the basis of a more qualitative analysis which assigns prominence to the longitudinal perspective. Thus, we will show that most children belonging to the first group present a developmental profile quite close to the one observed in younger normal children, hence their good recovery, while the children belonging to the second group present an atypical pattern, with errors and dissociations which remain steady over time, hence the persistence of the deficit. These results will be discussed in the light of current hypotheses on the nature of developmental language disorders.

THURSDAY   Session B: LITERACY
16:00 - 16:30

HOW YOUNG CHILDREN DEVELOP THEIR SCRIPT AWARENESS?

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There is an agreement in the research literature that the development of phonological and metalinguistic skills seems to provide the foundation for subsequent reading and spelling (Fox and Routh, 1974; Stanovich, 1994; Tunmer, Herriman & Nesdale, 1988 to name a few). Recently, some researchers examined the role of orthographic knowledge in reading acquisition (Berninger, 1995). Some maintain, however, that orthographic processing and phonological processing share a great deal of common variance (Bruck, 1992; Seidenberg & Tannenhaus, 1979; Wagner & Barker, 1994). At the same time, a growing body of evidence suggests that visual processing may be

also intricately implicated in orthographic processing (Corcos and Willows, 1993; Lovegrove and Williams, 1993; Seymour and Evans, 1993)

Geva & Wade Woolley (1995) found that children's script awareness in preschool was a strong predictor of early decoding skills in young bilingual children. In the research forming the basis of the proposed presentation the primary question addressed was: How do children come to realize that different languages may be associated with different writing systems?

A cross-sectional study was conducted with 125, 4-7 year old children, who were asked to distinguish different writing systems In each item the child is shown a black and white drawing of a cricket standing next to a flip-board (hence the "Cricket task"). What varies from item to item is the script appearing in the flip-board (e.g., English, Spanish, Russian, Chinese; voweled Hebrew). The child was asked "Is the Cricket reading English here?". For a subset of the items children were asked to explain how do they know that the "cricket is/isn't reading English?".

Analyses carried out so far point to the way in which the differentiation and integration process associated with the development of script awareness evolves. Preschool children seem to develop their script awareness in three steps. In the first step, regardless of the orthography, they maintain that the Cricket "is reading English". At this stage, they may not be even aware that different languages are associated with distinct writing systems. In the second step children come to distinguish global Roman alphabet features from non-Roman alphabet features. At this stage they can tell that Hebrew and Chinese are "not English", but maintain that Spanish and Russian "are English". In other words they seem to base their judgments on global features of the Roman alphabet. Even though they can name the letters of the alphabet and print their name they do not attend yet to orthographic features which may distinguish visually similar but orthographically distinct writing systems such as English and German. This realization comes when they begin to attend to visual distinctive features which discriminate the features of "their" writing system from the visual/spatial characteristics of similar systems. This last step may be bootstrapped to the beginnings of orthographic knowledge in the sense that they utilize their growing knowledge of permissible within-word letters strings. Now they combine visual information with phonological and orthographic information. Results will be discussed in terms of the mutually facilitating integration of linguistic awareness, fine-tuned visual information, phonological skills and orthographic knowledge.

USE OF "AMA, FAKAT, VE" IN THE WRITTEN LANGUAGE OF TURKISH SPEAKING CHILDREN

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Until the late 60's it was assumed that the 5 year old had mastered the syntactic structures of her native tongue and that later development mainly consisted of the addition of sophisticated lexicon. However, both cognition oriented studies stemming from Piagetian developmental psychology and linguistic-oriented studies have provided examples to challenge this view (Karmiloff-Smith 1992). The studies carried so far confirmed that certain aspects of language are still being acquired by over five year olds. For example, children learn to elaborate interesentential devices such as cohesive ties to form cohesive and coherent texts (Aksu Koc, 1988; Verhoeven 1988).

Among the cohesive ties, conjunctions form the group that still needs to be studied from pragmatic and textual perspectives especially in the development of Turkish.

Conjunctions are considered to be multifunctional units. They can serve different functions within a text both from pragmatic and textual perspectives. Some of these such as 'but' and 'and' were investigated in terms of their pragmatic roles in dialogues (V. Dijk 1979;1981).

Considering studies carried on in English, though there is a debate whether or not there are changes in the semantic relationships encoded by and; it has been described as an all purpose discourse glue. It is furthermore suggested that, connective variety in any discourse increases with age, while dependence on 'and' decreases. The use of 'but' also showed a developmental difference (Peterson and Mc Cabe, 1991).

In the narratives of Turkish speaking children 've' (and) is found as a later developed conjunction and considering 'ama'; 'fakat' (but) the latter one is not preferred by younger children (Ozcan and Topbas, 1995). Yet, these are not investigated in detail from pragmatic and textual perspectives.

The purpose of this study is to investigate the additive conjunction 've' and adversative conjunctions 'ama' 'fakat' in the written productions of children. Written medium is chosen because written language is considered as part of language development. To understand the full extent and complexity of the language acquisition process. It is necessary to be aware of the development of the written language. too (Perera, 1992).

This is a longitudinal study. The data is from 120 narratives completed by 30 students at the ages of 9,10,11 (3rd, 4th and 5th graders) and two adult control groups. One adult group is formed from the subjects who have got linguistics background and the other group does not have such an awareness. The subjects were asked to complete a narrative in which every 2nd paragraph was deleted.

The data is analyzed from two perspectives; pragmatics (e.g. denial of expectation in the use of 'ama' etc.) and textual (EG. whether these conjunctions are used intersegmentally or not). Furthermore, the data is examined to show the developmental differences across the age groups.

Aksu Koc, A.1988. "Simultaneity in Children's narratives" in S. Koc (ed) Studies on Turkish Linguistics Proceedings of the 4th international conference on Turkish Linguistics 17-19 August, 1988. METU: Ankara

Karmiloff-Smith A.1992. "Some fundamental aspects of language development after age 5" in Fletcher P. and M. Garmen (eds) Language acquisition CUP London.

Ozcan, H; Topbas, S.1995 "Anlatilarda baglac kullanimi: normal ve ozel egitim gereksinimli cocuklar arasinda bir karsilastirma" paper, presented in IX Turkish Linguistics seminar.

Perera, K.1992 "language acquisition and writing" in Fletcher P. and M. Garmen (eds) Language acquisition CUP London

Peterson C. and Mc Cabe, A. (1991) Linking Children's connective use and narrative macrostructure" in Mc Gabe, A. and c. Petebon (eds) Developing Narrative Structure. Hillsdale, N.J. Lawrence Erlbaum.

V. Dijk, T.A. (1979) "Pragmatic connectives" Journal of Pragmatics 3, 447-4þ56. , (1981) Studies in the pragmatics of discourse. New York Mouton

Verhoven, L.T. 1988, "Acquisition of discourse cohesion in Turkish" S. Koc (ed) Studies on Turkish Linguistics Proceedings of the 4th international conference on Turkish Linguistics 17-19 August, 1988, METU: Ankara, 437-451

CHILDREN'S ATTRIBUTIONS OF PRAGMATIC INTENTIONS AND EARLY WRITING ABILITY

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A recent laboratory study by Abbeduta et al. (1992) concluded that even children well into the school years fail to take others' conversational goals into account. Recent work by the author described the types of intentions young school-aged children attributed to speakers and their reported bases for such attributions. The present study aimed to determine if there were systematic links between the sophistication of such pragmatic awareness and specific features of early writing.

42 English-speaking children ranging in age from 6:2 to 9:1 years were presented a directive speech act in a puppet-played scenario, followed by an extensive clinical-style interview. Interview responses were coded in terms of type of illocutionary intention attributed to the Speaker in the staged speech act, and the basis upon which subjects believed they had made that attribution. A paraphrase procedure elicited baseline information on individual subjects' illocutionary uptake. Attributions and explanations were rated for sophistication. The same children produced samples of expository and narrative writing, which were rated in terms of global quality and structural sophistication.

Descriptive findings revealed a high degree of fit between illocutionary intentions attributed to speakers and felicity conditions of illocutionary acts. Moreover, children reported employing a wide range of cues in order to attribute intentional states to Speakers, including knowledge about cognition, social roles, proxemics, utterances and their form, illocutionary acts and their functions, interpretive processes, politeness conventions and maintenance of face.

To test links between pragmatic awareness and writing, children were grouped by age (7 and 8 years old) and quality of pragmatic attributions and explanations (higher and lower). Eight-year-olds showing higher sophistication of pragmatic attributions scored significantly higher on the quality ratings, and some structural measures, of the two writing tasks, when compared with their seven-year-old counterparts. No developmental effects for writing were found for the groups showing less sophistication of metapragmatic knowledge. This suggests that variation in pragmatic awareness may be sufficient to account for the well-known spurt in English-speaking children's writing

ability between the ages of 7 and 8 years. Further, the explanation holds not only for narrative but for expository writing, indicating a fundamental academic skill is linked to variation in pragmatic awareness.

THURSDAY   Session B: LITERACY
16:00 - 16:30

PHONOLOGICAL AWARENESS TRAINING AT KINDERGARTEN AND DETERMINANTS OF ITS EFFECTIVENESS

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Phonological awareness is a large and heterogeneous set of conscious representations that are acquired by focusing attention on the- perceptual representations of separate from the meaning of words. It includes:
- The awareness of the suprasegmental aspects of speech (such as phonological length), and of the segmental properties of speech (such as the appreciation that words may rhyme or begin/end with the same sound segment or divide into syllables). This kind of phonological sensitivity emerges naturally during the course of language development.
- More anaclitic knowledge which allows to divide words into phonemes, and to count, add, or delete these sounds segments, that emerges in response to the demands imposed in learning about grapheme-phoneme correspondences.
- The awareness of onesets and rimes (units of language structure that are intermediate in size between syllables and phonemes) which assists the formation of internal organization of the orthographic framework, word families, and hence, presumably the construction of a lexicon.

It is well documented that phonological awareness is a strong predictor of early reading and spelling progress. To learn how to read and spell, one must discover that units of print (letters) map on to units of sounds. Thus, the understanding of the alphabetic principles requires the ability to segment the speech stream into units of phoneme size and then blend them into morphemes to focus attention on meaning of words, sentences or paragraphs.

The results of diagnosis of the phonological awareness in over two hundred of five-year-old Polish children from rural and urban environments before they started a preparation program to read and to learn letters of the alphabet are presented. Forty children who had the lowest results of the diagnosis attended training groups.

Treatment of phonological awareness was developed outside the context of reading instruction over a full pre-school year. The training program consisted methalinguistic games and exercises in recognizing and manipulation of rhymes, perception of words as units within sentences (pushing plastic counters into a line of squares marked on a card while simultaneously saying each of the words in a sentence). Then children were encouraged to listen for, and to manipulate syllables in words: clapping when syllables are said, blending syllables to form common words, segmenting syllables using plastic counters and delating syllables and phonemes. At the last part of the training some letter knowledge was included. Individual and environmental determinants of differences in the results of the phonological awareness diagnosis and training are discussed.

THURSDAY   Session C: PHONOLOGY
16:00 - 16:30

THE ROLE OF THE SYLLABLE IN INFANTS' SPEECH SEGMENTATION

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The understanding of spoken language requires the identification of individual words in the utterance. A newborn child, however, doesn't know the words of the ambient language. Therefore, a prelinguistic child has to rely on other cues in order to segment the continuous speech signal into its relevant parts. In a series of experiments, we investigated the role of phonotactic features and syllable frequency in early speech segmentation.

Recently, Friederici and Wessels (1993) showed that infants are able to distinguish legal from illegal onset and offset clusters of consonants in Dutch monosyllabic pseudowords. They claimed that 9-month old infants have already some notion of the sequential ordering of the segments in the word. An alternative explanation of their results, however, is that the infants do not rely on phonotactic features when distinguishing legal from illegal clusters, but that their preference for legal pseudowords is based on the higher frequency of occurrence of these items relative to the illegal ones. Moreover, Zwitserlood, Schriefers, Lahiri, and Van Donselaar (1993) showed that Dutch adults are sensitive to the syllabic structure of spoken words.

In order to test this alternative hypothesis, pairs of phonotactically legal high- and low-frequency syllables (CCVC) were selected that differed only in the last phoneme (e.g., /blin/ vs. /blit/). In a first experiment, it was shown that 9-month old infants listened longer to lists of high-frequency syllables than to lists of low-frequency syllables.

In a recent paper on phonotactic patterns, however, Jusczyk, Luce and Charles-Luce (1994) showed that 9-month old infants are also sensitive to the transitional phoneme-to-phoneme probability and positional phoneme probability within pseudowords. In order to rule any possible confoundings, a second experiment was designed in which high- and low-frequency syllables were controlled for transitional and positional probabilities. This time, the effect of syllable frequency was not found. The implications of these results for word segmentation strategies in young infants will be discussed.

References:

Friederici, A.D., & Wessels, J.M.I. (1993). Phonotactic knowledge of word boundaries and its use in infant speech perception. Perception and Psychophysics, 54, 287-295.

Jusczyk, P.W., Luce, P.A., & Charles-Luce, J. (1994). Infants' sensitivity to phonotactic patterns in the native language. Journal of Memory and Language, 33, 630-645.

Zwitserlood, P., Schriefers, H., Lahiri, A., & Van Donselaar, W. (1993). The role of syllables in the perception of spoken Dutch. Journal of Experimental Psychology: Learning, Memory and Cognition, 19, 260-271.

THURSDAY   Session C: PHONOLOGY
16:00 - 16:30

SELECTION OF PHONEMES IN EARLY WORDS: FIRST SIGNS OF SELECTIVE AUDITORY ATTENTION AND FORTHCOMING PHONOLOGICAL PROFICIENCY

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The selection of phonemes in children's early words (beneath the number of 25 word types) is said to be triggered by children's phonological proficiency (Menyuk & Menn 1979), Leonard et al. (1982). Normal born children select restrictively words with those phonemes they auditorily are able to perceive and articulatory can produce. This phenomenon disappears when children utter more words and in series of phonemes triggered by semantic-phonological processes (Lindblom, 1986). In the first lexical stages children's phonemic production is bound by physiological and perceptive constraints. From Dutch CP children, treated from birth on, it is known, that they are cognitively normal (Heineman-de Boer, 1985) and that their parents do not differ from parents of normal born children in affectiveness, sensitiveness and responsiveness in the first years of baby's life (Hoeksema & Koomen, 1991). However, CP children do differ from normal bornes in speech perception as well as speech motor abilities. In our cross-sectional study, ten normal borne children and thirty children borne with a Cleft Palate, all 2;0 years of age , were examined once-only in the laboratory setting. In this situation mother and child were playing with the same set of toys. Their spontaneous communications were videotaped during twenty minutes. Only nine out of ten normal born and twenty out of these thirty CP toddlers were able to utter 100 glosses in their spontaneous conversation, the required amount for transcribing and analyzing children's phonological proficiency according to the Phonological Analysis for Dutch Children (Beers, to appear). The selection of phonemes in children's words, counted in absolute numbers, the percentages of phonemic deletions, substitutions and correct productions as well as the phonological processes were studied. In doing so general linguistic mechanisms in handling the phonotactic structure of the words and underlying the acquisition of the phonological system could be studied as well. Normal bornes with their perfect speech apparatus and hearing mechanism were compared with the CP children, born with an impaired speech apparatus and with less optimal hearing acuity. Thereafter we tuned in to the subgroups of CP children to compare the phonemic results in CP children with normal hearing, those with conductive loss and those with an hearing impairment, without and with hearing correction by eardrums. In doing so, the specific influence of auditory perception as well as speech motor ability

in phonemic selection, deletion, substitution and phonemic correctness could be traced. An interesting 'developmental' course could be seen in these groups of children. Selection in CP children represented the selective auditory attention for and mental processing of those phonemes the child could not produce yet, but was acquiring in due course. Selection could be considered as a valuable sign of fothcoming articulatory and phonemic ability. Selection of specific phonemes in CP children was not a phenomenon bound to the first lexical steges but could also be seen thereafter in speech samples with a much higher amount of lexical expressions than the 25 word types, mentioned by Leonard et al. (1982).

THURSDAY   Session C: PHONOLOGY
16:00 - 16:30

EARLY WORD RECOGNITION IN THE PRELINGUISTIC CHILD

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One of the problems a newborn child has to solve in order to understand what is said to him or her is the identification of the individual words in the utterance. Metrical stress may be an important cue to locate words in fluent speech. An obvious strategy for languages like English and Dutch is to assume that each strong syllable marks the onset of a new word (Cutler and Norris, 1988). Moreover, Jusczyk, Cutler and Redanz (1993) found that English-learning infants are sensitive to the predominant metrical pattern (strong/weak) of their native language at nine months of age. However, this study was restricted to lists of words. Recently, a new experimental paradigm has been developed enabling to investigate the role of metrical stress in the recognition and representation of words in more natural sentence contexts with young infants of 7 1/2 months of age (Jusczyk and Aslin, 1995).

In this paper, we will discuss the results of several experiments concerning the role of metrical stress in the recognition and representation of bisyllabic words in Dutch. The aim of this study was twofold. First, we assessed whether Dutch infants actually follow the syllable segmentation strategy and start speech segmentation at the beginning of strong syllables. Secondly, it was investigated whether both the strong and weak syllables of a bisyllabic word are recognized and represented or only the strong syllable. The results for Dutch are compared to English (Newsome and Jusczyk, 1995) and its implications are discussed.

The general set-up of the experiments was as follows. Dutch infants were familiarized with bisyllabic words having either a strong/weak (e.g., dokter) or a weak/strong stress pattern (e.g., beton). In one condition, the infants then were presented with spoken passages each containing six instances of the words they were familiarized with (e.g., dokter) or a partial match of the familiar word corresponding to a real word (e.g. dok). In the other condition, an equal number novel words (e.g., deksel, dek) were included in the passages. The amount of time that the infant kept its head turned towards the left or right loudspeaker of a test booth was measured. Listening times to passages including the words with the 'familiar' syllables were compared to passages including novel words without the 'familiar' syllables

References

Jusczyk, P.W., Cutler, A. & Redanz, N.J. (1993). Infants' preference for the predominant stress patterns of English words. Child Development, 64, 675-687.

Jusczyk, P.W. & Aslin, D. (1995). Infants' detection of sound patterns of words in fluent speech.Cognitive Psychology, 28.

Newsome, M.R. 8L Jusczyk, P.W. (1995). Do infants use stress as a cue for segmenting fluent speech? Paper presented at D. MacLaughlin & S, McEwen (Ed.), 19th Boston University Conference on Language Development, 2 (pp. 415-426) Boston, MA Cascadilla Press.

THURSDAY   Session C: PHONOLOGY
16:00 - 16:30

THE ACQUISITION OF CLUSTERS IN SPANISH. CHILDREN'S PRODUCTION OF BISYLLABIC CONSONANTAL CLUSTERS

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The aim of this study is to examine the characteristics of Spanish-speaking children's production of bisyllabic consonantal clusters. We considered only inside-word bisyllabic consonantal clusters, composed of two, three or four consonantal phonemes.

The present analysis is part of a larger project on children's language that examines linguistic records of 140 Spanish-speaking Argentinean children, of normal linguistic development, from 1:00 to 5:11 years old. Records were registered in three different

conditions: a) spontaneous mother-child interaction, b) spontaneous child-child interaction, and c) child during symbolic play. In this opportunity we selected, at random a total of 50 children forming 5 groups of 10 children each, according to age.

In the corpus of linguistic utterances for each age, we proposed to investigate the following phenomena in the production of inside-word bisyllabic consonantal clusters: total omission-partial omission, total substitution-partial substitution, and metathesis. We extended these observations to linguistic production in dramatic play , using it as witness linguistic production, since it represents an important proportion of children speech.

The production of inside-word bisyllabic consonantal clusters shows a sustained increase affected by a relative chronology This chronology goes from partial omission -with a higher incidence at 1:00-1:11 of age- to the stable production of bisyllabic consonantal clusters at the age of 5:00, passing by partial substitution, consonantal phoneme insertion forming cluster, and the interesting and particular productivity of metathesis at 3:00-4:06 of age.

The development of the mentioned aspects has a close relation with the isolated phonological acquisition of the consonantal phonemes that compose the clusters in Spanish, and with the construction of the syllabic form according to each stage of language acquisition.

THURSDAY   Session C: PHONOLOGY
16:00 - 16:30

THE ACQUISITION OF PHONOLOGY IN BRAZILIAN PORTUGUESE: A TENTATIVE SET OF DEVELOPMENTAL NORMS

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The set of norms proposed here results from a study with 216 normally-speaking children in the city of Salvador, Bahia distributed in nine age groups (sectioned in six-month intervals from the age of 2;0 to 5;0 and annually from age 5;0 to 8;0), and in three sociolinguistically-defined classes on the basis of parental level of education (A, B and C).

Speech samples were elicited through phonologically-controlled spontaneous responses, for which a standardized testing instrument was specifically designed. Reflecting the polysystemic approach underlying the analytical interpretation adopted, 31 descrete phonological variables were investigated as to the organization of the contrastive system with respect to syllable and word structures in the language.

From the point of view of the **ACQUISITIONAL ORDER** in Portuguese, the following trends were observed: as to *MANNER OF ARTICULATION*: Stop and nasals precede Semivocalic Glides, which precede Fricatives and Laterals, as these precede R-sounds; as to *POINT OF ARTICULATION*: Labials precede Dento-alveolars and Velars, which precede Palatals; as to *SYLLABLE STRUCTURE*: CV-patterns precede SV, which precede CVC, as this precedes CCV; as to *WORD STRUCTURE*: absolute (word-initial and word-final) position precedes within-word position.

From the **SOCIOLINGUISTIC** standpoint, two sets of maturational norms emerged: one representing phonological development in the standard variety of Brazilian Portuguese (classes A and B), and the other relating to the "popular" or substandard usage of the language (Class C).

THURSDAY   Session C: PHONOLOGY
16:00 - 16:30

PHONETIC DEVELOPMENT IN INFANCY: A LONGITUDINAL STUDY OF TWO
CHINESE CHILDREN FROM BIRTH TO ONE AND A HALF YEAR OLD*

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The purpose of the present study is to investigate the process of the phonetic development during the first and a half year of life, from cry, nonverbal vocalizations to speech sounds. Our data was collected from two Chinese infants, who were audiorecorded weekly in their homes from birth to 1;6. On the basis of auditory analysis of the recording material, we tried to describe the characteristics of children's early vocalizations and examine the relation between prelinguistic vocalizations and sound production. Furthermore,, we compared our studies with those of infants raised in English-speaking communities so as to discuss if there is a general pattern in the phonetic development.

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Our result shows that the phonetic development advances gradually during the first period of life, from first cry to- simple vocalization, then to repeated continuous syllable and continuous syllable and continuous vocalization of different syllables, finally producing verbal utterance. In this process the speech sounds and their four tones are produced more and more clearly and precisely. There is the continuity between prelinguistic vocalizations and speech sounds. The comparisons between results from different linguistic communities (Chinese, English) support the view that phonetic development follows a universal developmental pattern.

THURSDAY   Session D: MORPHOLOGY
16:00 - 16:30

ACQUISITION OF RUSSIAN VERB MORPHOLOGY: DIARY VS. TAPE-RECORDED DATA

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The paper has two goals. One is to present some new results on the acquisition of Russian verb morphology, based on the early data of a Russian child, whose mother ran an extensive diary, and parallelly made several tape-recordings. The other, perhaps more important, concerns methodology and consists of performing systematic comparisons of results obtained from each data source alone in order to establish what kind of bias is related to each mode of data collection, and what caveats should be imposed when using data of each source or comparing them. This can be of special importance in case of Russian, where the best source of knowledge on its acquisition remains Gvozdev's (1949) monumental diary study. Any new data obtained have to be compared to Gvozdev's results.

The general limitations of both sources of data are well known (see e.g. Braunwald and Brislin, 1979). One of the features of diary studies which make their results hardly comparable to naturalistic samples is their selectivity: humans, unlike machines, tend to register only those facts which they find interesting. This is especially true in relation to later stages of child development, where the diarist's bias favors low

frequency, deviant linguistic forms, on one hand, and especially sophisticated utterances (e.g. metalinguistic remarks) and creative forms (e.g. neologisms), on the other. Correct, simple and thus "uninteresting" structures, which constitute over 95 % of what the child says, can easily go unnoticed. For instance, the later parts of Gvozdev's diary provide a rather misleading picture of Zhenya's grammatical competence.

In the present paper, however, we are concerned with very early stages, as the focus is on emergent morphology: At that time the selectivity is not yet at play to such an extent as it will be later. In the earliest stages (up to 2;0) almost everything the child says looks (and in fact is) new, so both kinds of data (diary records and tape-recorded samples) seem rather similar, at least at the first glance. In the later period (from 2 to 3 years) this can slightly change: the basic system has been acquired already and only new inventions become salient to the observer.

The text of the diary studied covers the period from birth to three years of age and consists of 300 typewritten pages. The seven recording sessions were -made at the ages of 1;6, 1;7, 1;8, 1;10, 2;0, 2;4 and 2;10. They constitute Data Set I. Seven portions of diary data were selected which correspond chronologically to the recording sessions. They form Data Set II. Both data sets are coded in CHILDES.

We will present a number of quantitative and qualitative analyses, most of them concerned with verb morphology, which have been performed on each data set separately and on both sets combined. The results will provide methodological indices on how to evaluate the results obtained with both methods. While being especially important for the study of Russian, they could also present a more general methodological value.

THURSDAY   Session D: MORPHOLOGY
16:00 - 16:30

ON THE ACQUISITION OF TENSE AND ASPECT IN CROATIAN

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Research on child language acquisition in Croatian is a recent development. The aim of this paper is to present findings as to how and when in Croatian children acquire tense and aspect, or more precisely, how temporal properties of situations are coded first in child language.

The analysis will be based an 350 samples of childrens' speech (children with normal language development) obtained through the Croatian version of the MacArthur Communicative Development Inventory. This data will be supplemented by results obtained from the longitudinal recordings of spontaneous speech of a Croatian child (with normal language development) up to the age of 30 months.

Croatian, a Slavic language, is characterized by verbs that belong to either the perfective or imperfective aspectual category, or to both. The perfective-imperfective distinction is realized through morphological opposites. Croatian is also characterized by active and passive constructions, and by four moods. The interrelationship of aspect and tense is realized through a complex morphology.

Special attention will be paid to aspect as it is important in that it plays an integral role in the development of the overall temporal system. The second focus will be on seeing whether the aspectual distinction emerges simultaneously with tense, and when does this occur. Combination of the above should provide insight into how some temporal properties of situations are coded in Croatian child language, and thus provide data for further cross-linguistic research.

THURSDAY   Session D: MORPHOLOGY
16:00 - 16:30

DEIXIS, PERSONAL REFERENCE, AND USE OF PRONOUNS
IN BLIND CHILDREN

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INTRODUCTION

Traditionally it has been assumed that blind children use pronouns late and deficiently.
Some authors proposed that problems with pronouns, particularly 'reversal errors, were
part of a more general problem with deictic terms (Dunlea, 1989; Andersen, Dunlea
and Kekelis, 1993). However, the use of deictic adverbs and demonstratives is related
to visual perception of the location of objects in space, something which does not
happen to pronouns. In the present paper, we present the results of an analysis of the
use of deictic terms and personal pronouns to test this assumption.

METHOD

Subjects were 5 children with different degrees of vision. Three of them were totally
blind or with a minimal perception of light, the fourth one, although legally blind, was
partially sighted, and the fifth one had a normal vision. This normal child was the
fraternal twin sister of one of the blind children.

We identified all the productions of spatial deictic terms, such as adverbs
(*aqui/alli 'here/there'*, etc.) and demonstratives (*esto/eso: 'this/that'*, etc.), and
personal pronouns. Frequency and use (correct/non correct) of these forms were
analysed.
In addition to this, we also analysed the pragmatic functions of personal pronouns, and
the type of verbs with which they occurred, regarding their degree of transitiveness.

RESULTS

The results seem to indicate that blind children produce appreciably more errors with
deictic terms than the sighted and the partially sighted ones. On the contrary,
difference in the use of personal pronouns does not exist, as a general rule, although
there seem to exist important differences in the production of errors among blind
children, one of them producing many reversal errors.

Differences in the pragmatic use of pronouns do not exist between blind children and the partially or normally sighted ones. Nor differences in what forms are used with verbs depending on their transitivity status.

Thus, the results found suggest that the use of personal pronouns are governed by principles and conditions that are different to those which govern the use of deictic terms. The claim that blind children's use of personal pronouns is deficient seem to be an overinclusive generalization.

THURSDAY   Session D: MORPHOLOGY
16:00 - 16:30

DEICTIC WORDS IN THE SPEECH OF GEORGIAN CHILDREN

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The system of deixis in Georgian is connected with different types of vocalization (vowels). In the 'a', 'e' and 'i' vowel prefix deictic words in Martha's (our daughter's) speech 'a'-'i' binary system can be clearly observed where 'a' prefix definitely refers to something far away. 'e' is ambiguous (as it is generally in adult speech).
The demonstrative particle 'ai' indicating an object or event that can be immediately observed appears in Martha's speech from the nearly beginning. At the initial stage (1;3) the particle is mostly used as: a) a referential. and b) as a pace localization devise. At the following stage (1;5) the particle is used with a deictic function proper, when a toddler can verbally indicate the object referred to.

Pronouns: 1. 'amas' - 'imas' (this-that); 2. Only one member of the opposition 'aseti' -'iseti' (like this vs like that, or 'this type' vs that type') can be observed in the data under study; 3. The third person pronouns 'is', 'igi' (it) that are neutral with regard to 'proximity-remoteness' have not been observed in Martha's speech yet. She used demonstrative pronouns with the function of a personal pronoun (it should be pointed out, that this has been the case in many languages-J. Lyons).

The realization of the two member system of proximity-remoteness preverbs can be observed in the following samples; a) directed to the first person: 'modi' -come, 'momcci' -give (it to me), 'momitane' -bring (it to me); b) directed away from the first person; 'tavida' -he/she went away, 'garbian' -they are running (away).

Of the temporal relations only 'axla' (now) reference is observed, 'masin' (then) has not appeared.

Thus I-here-now ('me', 'ak', 'axla') which is crucial for the deictic system (K. Buhler) is opposed to you-there-then ('sen', 'ik', 'masin'). Of these oppositions in Martha's speech the following are fully realized: I-you: here-there. In the third pair we have 'now' and zero 'then'.

It must be pointed out that the first terms of the oppositions have appeared first, the second terms appeared later, the third pair also proves this. We can assume that the system considered as initial by Buhler is initial not only with regard to simplicity, but also from the chronological point of view.

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DIFFERENT SAMPLING METHODS OF PARENTAL REPORTS: THE CASE FOR THE SWEDISH EARLY COMMUNICATIVE DEVELOPMENT INVENTORY, SECDI

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The Communicative Development Inventories (CDI) is a valid, reliable and costs effective instrument by which parents can report on their children's current language skills. It opens new possibilities to gather large samples of child language data from which age based norms with precise estimation of the normal variation can be established. However, these possibilities raise the question of what sample procedures that are appropriate for generalising to a given population. Results obtained by three different sampling procedures are compared in the present study. Sample 1 consists of data from the national birth register in Sweden with a response rate of 85 per cent. Sample 2 consists of data from the birth register in a rural district in Sweden with a response rate of 4S per cent. Sample 3 was collected through advertisement in the local paper in a medium sized city of Sweden. Estimated response rate by this procedure was 2 per cent. In addition, both Sample 1 and Sample 2 contain longitudinal data that make comparisons between longitudinal and cross-sectional data possible. Parental education in Sample 1 and 2 were fairly close to the national means for the relevant age groups. The proportion of mothers with college diploma or higher was almost doubled in Sample 3 compared to the national mean for women. The level of education for fathers in Sample 3 was in line with the national mean for men. Children with one observation (cross-sectional) in Sample 2 scored higher on productive vocabulary at 16 months than children with several observations ending at 16 months (longitudinal data) in the same sample. Cross-sectional children at 16 months in Sample 2 scored also higher on productive vocabulary than cross-sectional children at 16 months from Sample 1. However, pooling cross-sectional and longitudinal children from Sample 2 at 16 months yielded similar vocabulary levels as cross-sectional children at 16 months from Sample 1. Subjects in Sample 3 are to few at the moment to make comparisons with this group meaningful. A conclusion is that the CDI instruments are sensitive to different sampling procedures and to different response

rates. However, it is possible to compensate for some imperfections in a sample like low response rate by combining different sampling techniques.

FRIDAY   Session A: EARLY ACQUISITION
16:15 - 16:45

RUSSIAN LANGUAGE ACQUISITION: DATA BASED ON QUESTIONNAIRES FOR PARENTS

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Sources of data:
1. Kent Infant Development (KID) Scale -a questionnaire for parents, which allows to evaluate developmental age of infants up to 15 months of age in 5 domains and general developmental age. Language scale consists of 38 items, describing prelanguage and early language behaviors.

2. Child Development Inventory (CDI). This questionnaire for parents evaluates developmental age of children from 1 to 6 years (4 years in Russian version) of age in 8 domains, including expressive language and language comprehension. The expressive language and language comprehension scales consist of 50 statements each. 19 statements specific for Russian language were added.

For the present study only normally developed children were selected. That meant full scale score within 2 standard deviations from norm for KID, and the difference between expressive language developmental age and chronological age not more than 30 % for CDI.

3. Additional vocabulary lists for both questionnaires.
        In KID list the parents were asked to write all words or sounds the child produces and if possible their meanings;
        in CDI list the parents had to mark the words in the given wordlist or to add words to this list.

4. Word understanding test for CDI.

Test list consisted of 69 words of 6 classes: 19 simple commands, 15 positional and directional words, 8 body parts, 6 colors, 5 quantitative words, and 16 qualitative words. The parents were given more or less explicit instructions how to test understanding of each word. Parents were asked also to mark the words child uses.

Results

1. Vocabularies of first words were collected.

2. The age of acquisition of all language items in questionnaires and all words in understanding test was evaluated. For the whole sample the responses to each item or word as a function of age was approximated by cumulative normal curve. The parameters of approximation serve as an estimate of acquisition age.

3. Comparison of responses to pairs of items allowed to estimate normal or at least typical order of acquisition of different language skills, including some relations between understanding and active usage.

4. The word understanding test showed that, though usually understanding precedes usage, there are some words children frequently use without understanding. Especially it concerns color words and words "two" and "three".

FRIDAY   Session A: EARLY ACQUISITION
16:15 - 16:45

A CROATIAN LANGUAGE PARENT REPORT STUDY: LEXICAL AND GRAMMATICAL DEVELOPMENT

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Zagreb, Croatia

This paper provides an analysis of parental report study of early communication skills. The instruments adopted for Croatian were the MacArthur Communicative Development Inventories emboding cultural and language differences. The analysis is based on data collected for 350 day-care children, age 8-16 months, and 350 day-care children, age 16-30 months. The instruments were implemented in different geographical regions.

The results in Croatian will be compared with English norms. We will point out to some language-specific differences regarding both lexical and grammatical development.

Because of the fact that Croatian and English differ significantly in morphology and syntax and that there are also an immense number of dialectal differences (both lexical and morphological) within Croatian, an attention will be given to the most significant moments.

However, as it is known from other studied languages, individual differences are so noticable and age is a poor predictor. Therefore, the general analysis of tendencies in communicative development based on the large sample of Croatian-speaking children will be supplemented by two case studies of the infants age 8 months to 20 months and 8 to 30 months, followed longitudinally on the adopted scale.

The study points to some language specific characteristics as well as to the similarities among languages in course of early communicative development.

FRIDAY   Session A: EARLY ACQUISITION
16:15 - 16:45

ACQUISITION OF COPULATIVE CONSTRUCTIONS WITH "SER" AND "ESTAR" IN EUROPEAN PORTUGUESE

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Portuguese language has two copulative verbs "ser" and "estar" to realize functions that in others languages, such as English or French, are mostly performed by a unique copulative verb (respectively "to be" and "etre" in the given examples).

The grammar of copulative verbs "ser" and "estar" is not yet enough elaborated. Descriptions that one can found in specialized literature are too much elementary and incomplete. Having in consideration these gaps, we think that is necessary, in the first part of our communication, to present a description, although succinct, of the uses of copulative

verbs "ser" and "estar". This description considers the four essential functions performed by these verbs, i.e., identification, classification, attribution or qualification and location and also their syntactic and semantic properties. In the second part of the communication, considering the above mentioned descriptive approach, we will present the results of the study of the acquisition of the uses of the copulative verbs "ser" and "estar" by young children. Such a study, in what concerns European Portuguese, has not, till now , be done. And, for Brazilian Portuguese, it is only made the study of the acquisition of the verbs "ser" and "estar" by children just only in their function of location (cf. LEMOS, 1987).

Our corpus consist of verbal interactions between 30 children and their mothers. These 30 child-mother interactive pairs were audio-taped in three different familiar contexts (bath, meal, play). Children ages range from 12 to 29 months, 15 girls and 15 boys and 3 groups were formed according to the age and the MLU. The data were transcribed and codified according to Program CHILDES (Child Language Data Exchange System) conventions and informatic treated also with this program. Data consists of all children and mothers' utterances that contains "ser" and "estar" as copulative verbs in which we analyse the fulfilling of their argumental structure, the different uses and functions also searching for the value and the role of maternal input as grammatical and pragmatical evidence.

FRIDAY   Session A: EARLY ACQUISITION
16:15 - 16:45

DIALOGICAL MARKERS IN THE SPEECH OF RUSSIAN CHILD (USING CHIP FOR RUSSIAN)

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1. The early dialogues of Russian children from 1.06;00 up to 2.06;00 were analyzed with the help of CHIP programme and in a traditional way in order to find out different specific and common traits of the partners. We took into consideration the percentage characteristics in order to avoid the coding mistakes. The preliminary results allow to

choose among the summary statistics some constant and changeable figures. The constant figures do not depend on child's age and thus can be considered as a specific characteristic of a certain child-mother pair. According to the first observations we can state that total percentage of overlap falls especially for the adult's self-repetitions. This is also shown by the average proportion of repetitions. The percentage of repetitions between child-mother and mother-child stays approximately the same. During this period we could not notice any statistically relevant increasing of the additions, while the percentage of deletions increased. The idea is that changeable figures can be considered as a characteristic of the age of development while the constant figures will help to distinguish between the pairs with different dialogical style.

2. The traditional analysis of dialogues between the child and the caregiver leads to the conclusion that we can formulate some specific "dialogical" rules that include the universal rules (such as changing of shifter categories or lexical connections) as well as language-specific rules (usage of pronouns, correspondence between the interrogative words and their antecedents etc.) Being the principal way of the early acquisition (at least for Russian in which mothers speak directly addressing to children) the dialogue serves as an intermediate stage until the language-specific grammar rules are acquired and direct connections between the word and its sense are established. The dialogical marker is a special word or form that has a correspondence in the replique of a partner. We distinguish initial markers that provoke a reply and accomplishing markers that bind a sentence to the previous replique. Conjunctions at the beginning of the phrase can play the role of accomplishing marker and the imperative forms of the verbs of speech usually serve as the initial ones. The general line of their development can be described schematically as

Repetition --> Repetition-with-Changes --> Changes.

SPEECH AND LANGUAGE DEVELOPMENT OF PRETERM INFANTS DURING THE FIRST TWO YEARS OF LIFE

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Procedure. I have followed the development of small preterm infants from birth up to corrected age of two years. The study includes 24 infants (13 girls and 11 boys). Criteria for entering the study was infant's gestational age 33 week or less and a very low birth weight <1500 g. The smallest child weighed 530 g, and 14 children weighed less than 1000 g at birth. The children in an under intensive follow-up group (N=9) were visited monthly during the first year and every two month during the second year. The rest (N=15) were visited during the two year period 4-7 times (altogether 214 homevisits).

The data consist of videotaped children's behavior and parents' interviews. Verbal production and comprehension were estimated. The following tests were used: The Bayley Scales of Infant Development (1969), Piagetian-Based Sensorimotor Assessment Scale (Uzgiris & Hunt 1975), The Receptive-Expressive Emergent Language Scale (Bzoch & League 1991), The Reynell Developmental Language Scale (1985), Infant/Child Monitoring Questionnaire (Squires, Bricker & Potter 1990). In addition, focus was put on oral-motor development (for instance feeding was videotaped during every home visit) and infants' cross and fine motor developmental milestones were checked. Also hospital documents of the children were available. Data collection was started in spring 1991 and was completed in early summer 1994.

Preliminary results. Findings indicate, that small preterm infants had problems especially in their expressive language skills. They were "silent" children whose vocal imitation was scarce and who increased their non-distress vocalization late. They seemed to compensate vocalizational limits with gestures. Longer expressions were difficult and often produced only the first or last syllable of the word during the one-word-stage in speech production. Some of the children showed difficulties in attentional skills and it was difficult to assess their real comprehension level by using the traditional tests.

In sensorimotor development at the age of four and nine months the preterm infants without major disabilities (e.g., CP) performed well according to the standards of the Piagetian scale when using corrected ages. Cross motor disabilities and difficulties to work with hands in midline were childrens' most common problems. Four of the children were diagnosed to have CP, and one of them also had a visual damage. Many of children had transient motor problems.

During the first months of life children's development approximates the corrected age, but when children are approaching the first year in life, their development already comes closer to the chronological age if they do not have major disabilities.

FRIDAY   Session B: INPUT
16:15 - 16:45

ABOUT CONVERSATIONAL STYLE OF ESTONIAN MOTHERS

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The present study investigates questions: Do Estonian mothers of 4-year-olds regulate mostly the child's physical activity and little verbal activity as mothers of two-year-olds did in a comparative study in Estonia, Sweden and the U.S. by Junefelt and me? Do they use a lot of imperatives? Is the frequency of regulation of verbal activity connected with the children's linguistic abilities? Is the regulative language used by mothers similar to that used by children themselves?

Ten mothers with 2-year-old and ten mothers with 4-year-old children were videotaped during meals and puzzle solving. Utterances which were aimed to direct attention, physical activity and verbal activity were also coded by the sentence types (imperatives, declaratives, questions). To establish the level of children's linguistic abilities, MLU and the longest utterance were calculated.

The results showed that although mothers of 2-year-olds used significantly more regulative utterances than mothers of 4-year-olds did, the pattern of using regulative language was the same. Mothers were

concerned with regulating physical activity and elicited little conversation. The preferred sentence type was imperative. Mothers of children with more developed linguistic abilities didn't elicit more conversation. In contrast, the frequency of regulating verbal activity was significantly and negatively related to the child's MLU. Finally, the relative frequency of regulating physical activity and attention by children were significantly related to relative frequency of using them by mothers.

FRIDAY   Session B: INPUT
16:15 - 16:45

THE EARLY DEVELOPMENT OF CHILDREN'S CONVERSATIONS WITH THEIR PARENTS

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Objectives

This longitudinal study investigates the development of children's conversations with parents. Two potential influences on conversation were evaluated. First, do mothers and fathers systematically differ in their conversational interactions with their children? Second, how are conversations of parents and children influenced by specific joint activities, and what are the implications for children's language development?

Methods and Procedures

Participants. Twenty middle-class two-parent American families with a child aged 3;0 participated.
Measures.
1. Parent/child conversations were videotaped at home, once at the beginning of the study, and again one year later. At each visit, each parent engaged in three types of interactions with the child: bookreading, joint remembering, and play. Videotapes were transcribed and coded for complexity and amount of parent and child language, parent interest in children's meanings, and joint attentional focus.
2. Children's level of language development was assessed at each visit with the PPVT-R, and by computing children's MLU.

Results & Discussion

Several statistically significant findings have emerged from analysis of data from the first 14 participants. (Prior to the conference, data from all participants as well as data from the second visit will be analyzed.)

Joint attentional focus was very high and didn't vary by context, suggesting that the parents and children were successfully engaged in the interactions.

The contexts themselves were quite different in terms of the kinds of conversations that occurred within them. The most complex parent language occurred in the bookreading context, but this context showed the lowest level of child participation. Conversely, the least complex parent language occurred in the play context, but this context showed the highest level of child participation. Also, parents asked the greatest number of "real" (vs. "known-answer") questions in the play context. The remembering context was quite different from either of the other two contexts, showing the highest occurrence of "known-answer" questions, and the highest occurrence of conversational disagreements.

Gender of parent made some subtle differences, but fathers and mothers were more similar than different. Fathers used more complex language than mothers only in the book reading context.

Conclusion

Each context in which a parent and child interact offers a unique opportunity for learning. Complexity of parent language fluctuates dynamically in order to "make the conversation work." Fathers, as well as mothers, were successful at modifying their language to fit each context, although the data hint that fathers may have varied their language less than mothers. Perhaps it is the variety of contexts to which a child is exposed and the ability of the parents to tune their language appropriately which will provide children with the richest learning opportunities. Our longitudinal data (available in 1995-1996) will allow us to begin to address this hypothesis.

FRIDAY   Session B: INPUT
16:15 - 16:45

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MATERNAL QUESTION-RESPONSES IN EARLY CHILD-MOTHER-DIALOGUE

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INTRODUCTION
At a certain level of language acquisition mothers start to use questions in their reactive turn to the child's dialogue-initiated utterances. The maternal questions are related to different aspects of language structures at a certain time. The goal of this study is to describe the form and communicative function of all observed reactive questions with regard to the child's age and the level of language development.

METHODS
7 infants were observed and audiorecorded in natural interactions with their mothers at home for 90 minutes monthly during the age of 1;0 - 3;4 years. 6 children were first-born infants, and 1 child was a second-born child (two children were twins). All child-initiated dialogues containing a maternal reactive question in the second turn of the dialogue (first maternal turn) were analysed. The frequencies were tested by the Freidman-Two-Way-Anova-Test.

RESULTS
Several kinds of reactive maternal questions could be found, belonging to the following categories:
A: questions asking for intention or detecting the situational reference
B: questions asking for the place of an object, or a person
C: questions asking for the meaning of the child's utterance in general
D: questions asking for a specification of the meaning of the child's utterance
E_1:   questions directed toward an elicitation of a confirmation of the mother's assignment of meaning
E_2:   questions directed toward an elicitation of a confirmation of the mother's interpretation of meaning (the meaning was not formulated explicitly by the child)

E_3:   questions directed toward an elicitation of a confirmation of the mother's interpretation of meaning (the meaning was formulated explicity by the child)

F: questions directed toward an elicitation of the correct or usual name of a person, object, or animal

G: questions directed toward an elicitation of an utterance with other themes

It can be shown that the frequencies of maternal questions depend on the age and level of language development. In the second year, questions A, B, and E_1 probably play an important role in the learning of word-object-references. In the third year, questions D, E_2, E_3, and G help the child to formulate an utterance-meaning, without which the addressee needs further contextual information for understanding.

FRIDAY   Session B: INPUT
16:15 - 16:45

THE CHARACTERISTICS OF THE LANGUAGE INPUT TO A PRELINGUISTIC CHILD

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Introduction

Infant directed speech (IDS) has often been subject of description. It is often said to have relatively high average pitch, big pitch variation and slow speech rate simple vocabulary, shorter utterances. All together, these characteristics may play an important role in the acquisition of the native language, for example because word boundaries are easier to detect in IDS than in adult directed speech. The claims made about IDS however have usually been made on the basis of speech elicited in laboratory settings or on the basis of relatively small amounts of data. The subject of my presentation is to give a detailed description of IDS to see whether the characteristics mentioned before are also true in a natural speaking situation.

Method

A large corpus of IDS has been collected. The corpus includes all the language spoken to a child every day during a period of three months (over 800 hours). At the beginning of this period the child was six months old, at the end it was nine months old. This age was chosen because experiments done by Peter Jusczyk et.al. have shown that infants have grown sensitive to certain characteristics of their native language by the time they are nine months old. The corpus is a good basis for the description of IDS because it reflects natural language not spoken in a laboratory setting but in the normal home situation. Therefore, the corpus allows for drawing conclusions about IDS as it really is. Besides, given the extent of the corpus, claims can be made about the amount of language a child hears every day, something which was not possible before because a comparable corpus has not been collected.

Results

The project includes data on the amount of language the child hears (language directly spoken to the child but also language the child hears spoken to others); a detailed description of the language input directed to the child in terms of type-token ratio, word choice, mean length of utterance etc.; the results of an acoustic analysis of both infant and adult directed speech in terms of average pitch, pitch variation and speech rate; an analysis of how 'suitable' IDS can be segmented into separate words. Initial results show that the amount of language spoken directly to the child varies roughly between five and forty minutes a day, and that the amount of language directed to the child decreases during the three months period. Initial results of a pitch analysis of adult directed speech and IDS seem to confirm the existing claims that IDS has relatively high pitch and more pitch variation. These findings will be presented in detail at the congress.

FRIDAY   Session B: INPUT
16:15 - 16:45

ACOUSTIC VARIABILITY OF INDIVIDUAL INSTANTIATIONS OF NOVEL WORD PRODUCTIONS

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As yet, there is little research available that acoustically analyzes input to children. The available data suggests that child-directed talk, at least for middle class English-speaking infants, is characterized by a higher and more variable pitch, exaggerated stress, and longer vowel durations. In addition, there is some evidence that input to children is 'clarified' relative to adult-directed input (Bernstein Ratner, 1984,1993). This latter work has emphasized the interactive nature of such modifications, showing that phonetic aspects of child-directed talk varies as a function of the linguistic abilities of the child. If this is the case, then examination of acoustic modifications that accompany the introduction of a new word might be particularly informative. To date, we are aware of no studies that do this.

The purpose of the present study was to document the variability of several acoustic durational measures over first and subsequent instantiations of two novel words--'bubba' (/bU b´ /) and 'wub'(/wUb/)-- and one real word ('thing') in the context of a fast mapping task. Specifically, differences in the acoustic variability of durational measures after first and subsequent mentions of novel and non-novel words across individual children were of interest. Variability within each acoustic measure across individual productions of a word was expected given our current understanding of lack of invariance in the acoustic signal (Luce & Pisoni, 1987). Also, differences across individual children were predicted given case study findings (e.g., Bernstein Ratner, 1993) that the phonetic realizations of words directed to children appeared to reflect the child's articulatory abilities. Finally, if input is fine-tuned to the perceived linguistic abilities of a child, variability within acoustic measures was predicted to be less for novel as compared to non-novel words, and for first as compared to subsequent word instantiations.

The two novel words were presented eight times to each of seven normally developing children (aged 13 -16 months) during play in the

context of a fast mapping task with an adult experimenter. Fifty-six tokens of each novel word, therefore, were available for analysis. Novel words were used to label unfamiliar toys, while 'thing' referred to unnamed toys. The durational acoustic measures will include word duration, vowel duration(s), frication duration, transition duration (for /w/), stop-gap duration(s), and stop release duration(s), as applicable. To standardize measures of variability and therefore allow comparisons across durational measures, coefficients of variation will be calculated by dividing the mean duration for a given measure by its standard deviation. The data have been collected and acoustic analysis is in progress.

THE TEACHER'S STYLE AND CHILDREN'S STORY COMPREHENSION

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Some studies have considered the particular nature of the language teachers use in various institutional contexts (Tizard, Philips & Plewis, 1976). Others have studied how the teacher's language differs when speaking with one child compared to her language while speaking with a group of children (Schaffer & Liddel, 1984). Barbieri, Devescovi & Bonardi (1987), in their study of teacher/child interaction during the shared reading of a book in a nursery school setting, identified two types of adult interactive style: the NARRATIVE STYLE, characterized by a sort of monologue in which the teacher doesn't solicit the children's involvement and asks a preponderance of rhetorical questions' and the DIALOGUE STYLE, which involves the children in a dialogue, using questions that require the children's active participation during the narration of the story's events. Albanese & Antoniotti (1992), analyzed these two interactive styles used by teachers telling a story to nursery school children and demonstrated that the DIALOGUE STYLE led to a higher level of story comprehension than the NARRATIVE STYLE. The dialogue style's three components are: a great number of questions

asked by the teacher during the storytelling, three exclusive types of questions asked, and a variety of questions.

The present study is intended to determine whether one or more of the components is able to improve children's comprehension. The subjects were 48 children, aged 4;4 to 6;2, randomly divided into four groups of 12 children each: the NUMBER, EXCLUSIVE TYPES, and VARIETY groups, and a control group (the READING group). Twenty-four teachers were also divided randomly into four groups of six teachers each, and assigned to the four children's groups. Each teacher told the story to two children at a time, chosen and paired randomly. All of the sessions were videotaped, and the dialogue were transcribed. The correct responses of the children of the first three groups were greater than the correct responses of the control group. But only the VARIETY group showed significantly different results from those of the control group.
Bibliography

Albanese, O. & Antoniotti, C. (1992). The influence of an educator's interactive style on the process of comprehension in preschool-age children. In Wolters, B. & Schnotz, W. (eds), Text comprehension and learning. Amsterdam: Swets & Zeitlinger. 201-209.

Barbieri, M.S., Devescovi, A., & Bonardi, P.A. (1 987). L'interazione verbale tra bambino ed educatrice durante il racconto di una storia. In Mantovani, S. & Musatti, T. (eds), Adulti e bambini: Educare eComunicare. Juvenilia.

Schaffer, H.R. & Liddel, C. (1984). Adult-child interaction under dyadic and polyadic conditions. British Journal of Developmental Psychology, 2, 33-42.

Tizard, B., Philips, J., & Plewis, J. (1976). Staff behaviour in preschool centres. Journal of Child Pscychology and Psychiatry, 17, 21-23.

EXPLAINING AND GIVING ACCOUNTS: ARGUMENTATION AND POLITENESS

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This paper traces the emergence of explanations and "'accounts" in one child's discourse by examining spontaneous conversational interaction between a child (1;8 - 3;0) and her caretaker, over the time period studied.

Using an initial working definition of "explanation" we will look at utterances that stand in a particular relation to a previous utterances such that the second seeks to clarify some aspect of the preceding utterance. What is being clarified may be some aspect of the content of the speaker's previous utterance, but the speaker may also give a reason or account as to why she is making the utterance at all. Following are some examples:

> K: yo voy a tener esto aca   (I'm gonna hold this here so that
> para que todos loss ninos   all the children can listen to it)
> lo descuchen.   [2;8]
>
> M: y esto va aca.   (And this one goes here.
> K: eso no es para los ninos   That's not for the children either.
> tampoco.
> K:porque eso es para los   Because that's for the littleblocks)
> palitos.   [3;0]
>
> M: [places doll on wooden block]
> K: no.   (No.
> K: aca no se ponen.   They don't go here.)
>   [3;0]

The prototypical explanation found in the data involves the use of markers such as "porque" (because) or "para que" (so that, in order to); however, very often there is no overt marking and the listener has to

derive through inference the relation that holds between utterances. In terms of content, these explanations may give reasons or causes for the speaker saying what she is saying, which invoke various aspects of the social context: expression of needs, statements of rights and responsibilities and invoking rules, real or made up. When we examine the acts to which the child attaches accounts we see that these are mostly directives, proposals or acts that occur in disagreement sequences (rejection o~ what the other has said, for example). These seem to occur when there are differing interpretations of the situation at hand, when different courses of action are proposed or when there are differing definitions of objects and events, for example. Thus we can see that the giving of reasons and accounts arises in a pragmatic context to justify the child's actions to the other. Examination of the types of acts to which accounts or explanations are attached gives evidence not only for the initial development of the child's argumentative abilities but also for the emergent social-construction the child is making of her environment. Deciding that something needs to be explained involves making a complex supposition about the extent and limitations of shared knowledge with the interlocutor, adopting the interlocutor's perspective on the current situation and appealing to a currently established "social order" for valid justifications.

FRIDAY   Session C: DISCOURSE
16:15 - 16:45

INDIVIDUAL PECULIARITIES AND AGE-RELATED DIFFERENCES IN THE ORGANIZATION OF THE REPRODUCED TEXTS

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In the report speech of pre-school, first-grade and second-grade russion speaking children is analysed in order to discover individual peculiarities and age-related differences in speech production and discource organization.

Material and methodology, 90 children aged 5-8.5 were asked to retell 2 tales told them by the investigator (114 words and 154 words) and to tell a story about themselves. Tapes were transcribed, and protocols

were investigated at the level of utterance, lexical levle and discource level.

At the first level of analysis it was important to take into account pauses and intonation contour distinguishing between the intonation of completion and uncompletion. The slow of speech is segmented into phrases - units of text between two pauses with the intonation of completion, and pause groups - minimal segments of text between any two adjacent pauses. Phrases contain 1-8 pause groups. At the level of utterance the following parameters were considered:

- mean length of pausal group (words)
- mean length of phrase (words)
- mean number of pausal groups in phrase
- utterance hesisation, counted according to the specially made classification of hesitation markers within utterance; different types of hesitant repetitions and self-corrections, lengthening of sounds, pause fillers, non-syntactic pauses.

At the lexical level two parameters were used:
- number and weight of lexical substitutions (in comparison with the original tales)
- pronominalization index (number of pronouns/number of nouns)

The basic unit of analysis at the discourse level is clause. Trabasso et al. (1989) discourse analysis (hierarchical goal plan) was applied. The content of each clause is classified into one of six categories given different weight (1-3) according to the importance of the category for the realization of goal/plan: setting, event, internal response, goal, attempt and outcome.

Comparison of the original tale with its variants reproduced by children enabled to measure number and weight of content losses in retellings of each of two tales. The following parameters were considered at the discourse level:

- length of text (word)
- length of text (clauses)
- number and weight of content losses.
- content distortion (number of clouses incompatible with the content of the original tale)
- text hesitation markers (different types of faulty clouses, text repetitions, questions of investigator that child needed to continue retelling, metatext comments or questions of the child).

Characteristics of speech production and text structuring correlate with
age and sex. Within age group were found different basic patterns of
language functioning.
Parameters describing reproduced texts are compared with spontaneous
speech data. It was revealed that children differ in types of reacting on
complexity of the task (the second tale is more complex than the first)
and on the type of the task (retelling vs. spontaneous speech).

Speech data of normal children, children with learning disabilities and
adult speakers are compared.

FRIDAY   Session C: DISCOURSE
16:15 - 16:45

HOW GERMAN-SPEAKING PRE-SCHOOL CHILDREN MANAGE IN CONSTRUCTING INITIAL OPPOSITION

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The study is part of a project investigating as to how German-speaking
pre-school children cope interactionally with states of potential conflict[1].
It has been stimulated by psycholinguistic research work which applies
methods of conversation analysis (cf. Eisenberg & Garvey 1981,
Maynard 1985, Shugar & Zonczewska 1989, and others). Another source
of ideas have been studies on conflict discourse between older children
ant parents (cf. Spranz-Fogasy & Fleischmann 1993), and studies on
children's arguing (for example Voelzing 1981). We started our
investigation with a group of three-year-olds visiting a kindergarten in
Berlin. We recorded verbal interactions of the children, and between the
children and their caretakers, at regular intervals until these children
were six years old. The data comprise 288 adversative episodes which
we took from taperecorded and transcribed discourses in every-day
kindergarten settings.

To make a latent conflict explicit can be regarded as a necessary first
-step if you want to assert your aims and/or to mediate between
different points of view. In our data we found the following types of
procedures used by the children to construct initial opposition: verbal

and nonverbal procedures, unspecific (verbal) and specific (verbal) procedures, and - among the specific (verbal) procedures - simple and complex ones. Complex procedures include various techniques of argumentative contradiction.

Questions we will try to answer are:
(a) Which procedures (and which combinations of procedures) are used by the children to construct initial opposition? Is there a connection between special procedures and types of oppositional states? (b) Which types of complex procedures are used by the children? And is there any tendency to use more complex procedures with growing age? (c) How do special procedures influence the social situation and the ongoing oppositional discourse?

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1) The project was started in 1990 (cf. the contribution of Kraft & Vollhardt at the Fifth Congress in Budapest). After an interval of about two years we continued the study with support of the Deutsche Forschungsgemeinschaft.

FRIDAY   Session C: DISCOURSE
16:15 - 16:45

BUILDING BLOCKS AND FAVOURITE TALES: THE DEVELOPMENT OF CHILDREN' S STORY TELLING SKILLS

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Children's acquisition of discourse skills has received considerable investigation. These skills are important in the development of oral functioning, but also in the development of reading skills once the child goes to school. In this paper, I report on findings from a study in which children were asked to identify their favourite story and then to tell the story to their parent. There were fifteen children in each of three age groups: three, five and seven. All children came from middle-class, highly literate families. The parent was asked to assist the child in the task if and when this was necessary. The activity was carried out in the child's

home and no observers were present. Parents were asked to tape-record the entire interaction.

The conversations were analysed from an interactional point of view. Thus the use of connectives, tense and aspect, and reference in the child's stories were examined, together with the more interacational aspects such as turn-taking by parent and child, clarification requests from the parent and responses from the child, scaffolding techniques used by the parent to assist the child to develop the plotline, and topic continuity by the child.

The findings suggest that in these educated families, children have relatively well-developed story-telling skills by the age of seven. Parents are finely tuned to their child's story-telling abilities and this is reflected in the language they use to assist their child with the task. While individual differences within the age groups were apparent, there were also patterns in the ways in which parents approached the task with children of different ages. The findings are discussed in relation to their implications for emergent literacy skills and their teaching.

FRIDAY   Session C: DISCOURSE
16:15 - 16:45

VERBAL REPETITION IN YOUNG CHILDREN'S CONVERSATIONS

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Some of Ochs' views -as well as views by other psycholinguists- about self-repetition and other-repetition in young children's conversation are critically examined in this paper. According to Ochs, self-repetition may be used 1) to draw the hearer's attention to something the speaker noticed; 2) to emphasize a point and 3) to clarify or correct a previous utterance. In Ochs' and Nelson & Gruendel's data another aspect of verbal (self) repetition is neglected, i.e. immediate repetition of the same word (or phrase), which may be non emphatic or emphatic (intensifying, quantifying, accumulative or carriyng out other communicative functions), as well as unplanned or planned. This kind of verbal repetition also

occurs in small children's conversations even at the stage of two word utterances, if not earlier.

FRIDAY   Session C: DISCOURSE
16:15 - 16:45

TASK EFFECTS ON THE DISCOURSE TOPIC MANIPULATION SKILLS OF SCOTTISH 4, 6 AND 9 YEAR OLDS

Ed Baines   Christine J. Howe
Strathclyde University
Glasgow,U. K.

The research consisted of 2 studies each involving the comparison of 4, 6 and 9 year old's topic management abilities in 2 different tasks.

The tasks differed according to the distribution of information required to complete the task betwen each participant in the dyad.

Results indicated contextual and developmental differences. Tasks where one child must instruct the other on task completion produced 'telling' and evaluating topical sequences and there were few developmental differences in these tasks. However, tasks where children were required to pool information or generate ideas themselves generally produced longer and discussion like topical sequences among the older children.

FRIDAY   Session D: BILINGUALISM
16:15 - 16:45

TURKISH L1 INFLUENCE IN CHILD L2 ACQUISITION OF ENGLISH

Belma Haznedar
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Durham, UK

Beginning with the research based on the assumptions of the
Contrastive Analysis Hypothesis in the 1950s, the debate concerning the
role of the first language has long been an important topic of discussion
in second language acquisition (L2A) studies. Since the 1970s, much of
L2A research, however, has primarily dealt with the investigation of
both child and adult L2A from a target language perspective. Ignoring
intermediate stages and transfer effects, the focus has largely been on
adult L2 learners and the comparison of their language development
with child first language acquisition. In recent generative studies
duPlessis, Solin, Travis and White (1987); Schwartz and Tomaselli
(1990) have proposed that L1 knowledge may mediate the acquisition of
L2 grammar. Vainikka and Young-Scholten (1994) have argued that
Korean and Turkish adults acquiring German transfer the headedness
of the VP from the their first language. One needs to know whether child
L2 learners, like adults, also initially transfer L1 parameter values. The
goal of this paper is to address this question. Based on data from a
longitudinal study, this paper examines the early stages of acquisition of
verb placement and negation by a 4.3 year old Turkish child (Erdem)
acquiring English in a naturalistic setting. Early recordings indicate that
the learner initially has a head final VP (OV) in which a direct object or
other verbal material precedes the thematic verb, as in (1a, b):

(I) a. Fast push (Sample 7)
      b. I something eating. (Sample 8)

The acquisition of negation shows a similar pattern in that the negative
element no follows the noun and the verb, which is consistent with the
properties of negation in Turkish. Consider the examples in given in (2a,
b):

(2) a. Cat no. (Sample 1)
      b. Play no. (Sample 2)

Thus, the data show that, like Turkish adults, this Turkish child passes through a stage where Ll parametric values are transferred, suggesting that the child L2 learner approaches the L2A with previous knowledge of another language. Hence, child L2 acquisition is different from Ll linguistic development in that transfer occurs. Moreover, the result also allows us to address the question of whether the L2 learner is able to reset the parameters in question for L2 and then passes onto the intermediate stages of development.

FRIDAY   Session D: BILINGUALISM
16:15 - 16:45

BILINGUAL ABILITIES IN RUSSIAN-GERMAN FAMILIES IN GERMANY

Katharina Meng
Institute for Deutsche Sprache
Mannheim, Germany

1. Introduction

Over the last few years, a rapidly growing number of ethnic Germans have migrated to Germany from the former Soviet Union. There are about one million of them currently living in Germany. The integration of these immigrants into German society raises both social problems and research questions. The abrupt change of language and culture causes language and cultural barriers, disturbances in the education process and identity crises. There is a close interrelationship between these problems and the linguistic knowledge, language use, and language acquisition of the immigrants.

In this context a cross-section study of the linguistic abilities in Russian-German families was started. The aim was to learn in what sense and to what degree the two youngest generations young parents and their preschool children - can be seen as bilingual Russian-German individuals.

It is not possible to assess all major aspects of the individuals' Russian and German abilities, so it was necessary to restrict ourselves to one characteristic area. Since we were mainly interested in studying family communication from the perspective of the children's language

acquisition, we chose a complex of linguistic abilities that is often used in parent-preschooler exchanges, but of course also in general communication: the introduction and continuation of discourse referents by referential expressions.

2. Materials

The subjects' abilities to introduce and continue discourse referents will be assessed on the basis of picture book interactions. Dyads of a parent and a preschool child were given picture books without any text. The books used consist of four to seven pictures depicting a conflict situation. First one of the parents was asked to tell the child the story, and then the child was asked to tell the same story to the other parent. Both were asked to deliver a Russian and a German version, if they could. The picture book interactions were videotaped and transcribed.

3. Subjects

Our data base consists of records and transcripts of ten Russian-German families who have been living in Germany for 3 -12 months. We have at our disposal picture book narratives from
- 8 preschoolers (4 girls, 4 boys; aged between 3;3 and 7;0 years): 4 preschoolers spoke only Russian; 4 preschoolers spoke Russian and German;
-19 parents (10 mothers, 9 fathers; aged between 20 and 32 years): 7 parents spoke only Russian; 12 parents spoke Russian and German.

4. Analysis

We analyse the expressions referring to the main characters in the Russian and German narratives in terms of the following aspects:
- linguistic form
- discourse function   .
- word order position
- errors

FRIDAY   Session D: BILINGUALISM
16:15 - 16:45

A COMPARISON OF THE ACQUISITION OF GALICIAN AND SPANISH FORMS OF POSSESSION IN BILINGUAL CHILDREN

Miguel Perez-Pereira   Maria T. Forjan Villar   Sagrario Garcia
University of Santiago
Santiago, Spain

OBJECTIVE:
Galician language, a minority language spoken in a northwest region of Spain, presents a distinctive possessive system in comparison to the Spanish one. In Galician, there is a unique form for possessive pronouns and adjectives, while in Spanish there are two separate forms. Therefore, it seems interesting to test whether this plurifunctional feature of the Galician system may influence the rate of acquisition in comparison to the Spanish one.

METHOD:
Four bilingual Spanish-Galician children were studied. All of them were from a medium to high SES. They were 1;1, 1;8, 1;10, and 2;11 at the beginning of the study, and were studied during a couple of years.

The children were videorecorded each month at home in situations of everyday life in one hour sessions. Transcriptions and analysis of language were made using the CHILDES computer program. The following topics were analysed: 1) the different forms used by the children to set forth possession and their order of acquisition; 2) the frequency of use and order of acquisition of possessive pronouns and adjectives; and 3) the pragmatic use of these forms (a) claiming possession, b) description of ownership, c) narrative use, and d) elicited possession).

RESULTS:
The children used primitive forms, such as "vertical constructions", "de + name" (similar to genitive saxon), or "name alone" (omitting the preposition "de"), to set forth possession prior to pronouns and adjectives.

The acquisition of the Galician system of possessive adjectives and pronouns seems to be acquired later than the Spanish one. This is

probably because in Galician one form covers different grammatical functions, something which does not happen in Spanish, where different forms exist for adjectives and pronouns.

Finally, the children firstly used pronouns and adjectives with a requesting or claiming function, the other functions (description and narrative) emerging later.

FRIDAY   Session D: BILINGUALISM
16:15 - 16:45

ONE PARENT-TWO LANGUAGES: THE EFFECT ON EARLY BILINGUAL ACQUISITION

Suzanne Quay
International Christian University
Tokyo, Japan

The literature on language choice in adults and children suggests that features attributed to an interlocutor - such as language proficiency, language preference, social identity, etc. - affect a speaker's language choice. In this paper I propose that if a child's ability to distinguish between the two languages he or she hears is not in question, then language itself provides the context for the child's language choice. This claim that the language spoken by an interlocutor is an important aspect of an interlocutor supports the work done in accommodation theory, audience design and in the social psychology of language choice and does not detract from other factors mentioned by different researchers.

Data from a young Spanish-English child at 1;8.16 and 1;9.19 in interaction with her mother as the sole English-speaking and Spanish-speaking interlocutor respectively are used to consider whether the child's language choice is as a function of the language spoken by the interlocutor. It was found that 91% of the child's total utterances is in Spanish when the mother speaks Spanish to the child and 75 % of the child's total utterances is in English when the mother speaks English to her daughter. Thus it would seem that the language spoken by the interlocutor creates a context for the child's language choices and the 'one

parent-one language' method of raising bilingual children may not be absolutely imperative for bilingual development.

Isolating language as the important aspect of the interlocutor is needed for us to come closer to synthesizing the many interpretations in the literature on bilingualism. By doing so, I hope to form a bridge between what affects language choice in very young children and what affects language choice in older children and adults.

WORKSHOP SESSIONS

MONDAY   Session A
14:15 - 16:15   Room A

TURKISH IN TYPOLOGICAL PERSPECTIVE

Convenor:Dan I. Slobin INTRODUCTION

MODALITY:
Ayhan Aksu - Koç: ACQUISITION OF EVIDENTIALITY IN TURKISH
Soonja Choi: ACQUISITION OF SENTENCE-ENDING MODAL
SUFFIXES IN KOREAN

DEFINITENESS:
Aylin Küntay & Lisa Dasinger: INTRODUCING REFERENTS IN
ELICITED NARRATIVE: TURKISH vs. FINNISH

CASEMARKING:
Patricia Clancy: "OPTIONAL" CASEMARKING IN KOREAN
ACQUISITION
Dan Slobin: OBLIGATORY CASEMARKING IN TURKISH
ACQUISITION

CONNECTIVITY:
Ruth Berman: CONJOINING FINITE CLAUSES IN SEMITIC AND
INDO-EUROPEAN vs. NONFINITE CONNECTIVITY IN TURKISH

TURKISH AS FIRST LANGUAGE FOR BILINGUAL CHILDREN:
Ludo Verhoeven: ACQUISITION OF TURKISH IN A SECOND
LANGUAGE CONTEXT
Harriet Jisa & Mehmet - Ali Akıncı: INFLUENCES OF L1 TURKISH
ON L2 FRENCH

DISCUSSION: Melissa Bowerman

THEME: A comparison of Turkish with languages that contrast on
specific typological dimensions can illuminate the role of such dimensions
in the acquisition and use of language.

INTRODUCTION

Dan Slobin
University of California
Berkeley, CA, USA

The importance of typology as a factor in acquisition. Brief overview of the typological dimensions of Turkish that will be examined in comparative perspective in the following papers.

ACQUISITION OF EVIDENTIALITY IN TURKISH

Ayhan Aksu-Koç
Boğaziçi University
İstanbul, Turkey

Turkish marks temporal, aspectual, and modal notions inflectionally on the verb. The system grammaticizes evidentiality, a subcategory of epistemic modality. Several tense-aspect-mood inflections that directly modify the verb, along with a few sentence level clitics, function to convey epistemic distinctions relevant to (1) source of information (direct vs. indirect experience, (2) degree of confidence (certainty/factuality vs. noncertainty/nonfactuality), and (3) psychological stance (well assimilated vs. novel information for the speaker/hearer. Findings based on longitudinal in depth analyses and cross-sectional surveys of the early period reveal that the tense-aspect-mood inflections are acquired before discourse level modal operators: (1) By age 2;0, the forms of direct experience are used for talking about immediate past and ongoing events as well as the imperative and the optative for desire and intention. Thus, at this point in development, there is only an opposition of epistemic vs. deontic notions. (2) Next, an additional form is used to comment on states, and functions to signal novelty of information for the speaker. (3) This form is later used temporal-modally, in reference to past processes inferred from present states, thus marking source of evidence. (4) An additional form, used to focus on the characteristic properties of events or agents, first refers to habitual or normative states of affairs and thus marks well assimilated knowledge on the part of the speaker. (5) The habitual use gives way to the marking of epistemic possibility, also within the third year. (6) By about age 3;0, the form is used as a pure modal discourse operator for quoted speech and pretend activity. At this age, discourse clitics come to be used in complex verbal

constructions, whereas a marker that qualifies degree of confidence is not observed before the age of 4;6-5;0, when it is still very infrequent.

In summary, the first distinction marked by the Turkish child within epistemic modality is relevant to speaker's psychological stance, the second to knowledge source, and the third to degree of confidence. The sequence in which the different forms assume these functions appears consistent across children.

ACQUISITION OF SENTENCE-ENDING MODAL SUFFIXES IN KOREAN

Soonja Choi
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San Diego, CA, USA

Sentence-ending (SE) modal suffixes in Korean express various types of evidentiality and the speaker's status of knowledge about a proposition. (Note that these suffixes mark mood and modality only: Tense and aspect are marked by a different set of bound morphemes.) Several of the SE suffixes are acquired quite early by Korean children. Findings are based on the semantic and pragmatic functions of five modal suffixes acquired between 1;8 and 3;0 by three Korean children. The analysis focuses on linguistic and extralinguistic contexts in which the child produces a particular suffix during her interactions with the caregiver. The results show that children acquire suffixes in a consistent order and with clear semantic distinctions: (1) Children first produce the form that expresses new information recently acquired through direct experience: immediate past, ongoing event, or present state. (2) Next, they acquire the form that expresses information that they are already familiar with, e.g., past events or events/states that recur. (3) They acquire a form that expresses information that is well assimilated in their knowledge system and which is also shared with the hearer. (4) Finally, they acquire the form that denotes an indirect source of information. Thus, in acquiring SE suffixes, Korean children first focus on their own knowledge status, then the knowledge status of the listener, and later the source of information. Children acquire these meanings through their interactions with caregivers, paying attention to current discourse topic, contributing new information to it, and, thus, building more and more shared knowledge with the caregiver. The paper argues that the discourse-interactional component embedded in the modal meaning contributes to its early acquisition.

INTRODUCING REFERENTS IN ELICITED NARRATIVE: FINNISH VS. TURKISH

Lisa Dasinger   Aylin Küntay
University of California
Berkeley, CA, USA

The developing linguistic strategies for introducing referents were investigated in the elicited narratives of 3 to 9 year old and adult speakers of Finnish and Turkish. Both Finnish and Turkish are non-article-bearing languages which use word order, casemarking, and optional prenominal lexical items to express the definite-indefinite contrast. In both languages, participant status (centrality and animacy) was found to exert an effect on the kinds of referring expressions used. Children in the younger age groups more often used devices which presupposed the listener's knowledge of central and/or animate referents compared to older children and adults. While a similar developmental trend in the use of explicitly indefinite referring expressions occurred in both languages, striking differences were observed. In particular, Turkish speakers used 'bir', the numeral one, when introducing referents more often than their Finnish counterparts used the corresponding term "yksi". The degree of grammaticalization of a formal article system is explored as a likely explanatory factor for this perceived crosslinguistic difference. Clause-level marking of definiteness was also found to adhere to the adult model in Turkish narratives earlier than in Finnish. Overall, Finnish and Turkish children, like child speakers of other languages, exhibited a similar course of development characterized by the late marking of definiteness by purely intralinguistic means, starting around 6 to 7 years of age.

"OPTIONAL" CASEMARKING IN KOREAN ACQUISITION

Patricia Clancy
University of California
Santa Barbara, CA, USA

The typology of casemarking in Korean has two fundamental properties with important implications for acquisition: (1) case is marked by postpositions on surface NPs, and (2) casemarking is "optional" in the sense that nominative and accusative postpositions may be omitted in colloquial speech. Turkish differs from Korean in that casemarking is obligatory. Therefore, while casemarking plays a central role in the

acquisition and marking of discourse-pragmatic functions in Korean, the corresponding system in Turkish serves syntactic functions.

The most common form of reference in Korean discourse is ellipsis. Referents are overtly mentioned only in specific types of discourse contexts, e.g. when the referent is being introduced into discourse for the first time or is being contrasted with another referent. Since casemarking postpositions occur only on overtly mentioned NPs, the Korean child is exposed to nominative and accusative casemarkers, for example, only when the referent has the necessary discourse properties to motivate surface expression. Thus the casemarking postpositions are necessarily associated in the child's experience with specific discourse properties. In addition, the fact that casemarkers are sometimes omitted creates a potential contrast for the child between marked vs. unmarked overt NPs.

The data for this study consist of one-hour monthly transcripts from two Korean children aged 1;8 and 1;10 at the start of the study, who were recorded in interaction with their mothers over the course of a year. Results reveal a gradual increase in use of the nominative and accusative postpositions. The sequence of development that can be inferred from the data is: (1) use of unmarked nouns, (2) acquisition of the nominative postposition, and (3) acquisition of the accusative postposition. The children did not rapidly generalize these casemarkers to all available surface subjects and objects, as one might predict if acquisition involved a simple mapping to pre-existing syntactic categories. Instead, both children show semantic constraints on their use of casemarkers: one child restricted the nominative postposition to Human Agents, the other restricted accusative postpositions to Inanimate Patients. Thus the data support an early semantic basis for Korean casemarking.

Furthermore, the children's use of the nominative postposition exhibits clear discourse-pragmatic constraints. Compared with unmarked subjects, a higher percentage of NPs with the nominative casemarker are the targets of wh- questions or answers. Marked NPs are also more likely to involve first mentions of the referent in discourse, or mention of referents that did not appear in the preceding main clause. In addition, one child preferentially used the nominative casemarker on contrasted referents, the other child on absent referents. Thus the nominative casemarker is clearly associated with specific discourse functions, which differ somewhat for the two children.

In sum, the data provide strong evidence for the importance of semantic and discourse-pragmatic factors in the early stages of acquiring Korean casemarkers. In Korean, and in any language in which casemarkers occur on surface NPs, the casemarking system will necessarily be overlaid on the discourse-based system of referential choice. This raises the possibility that casemarkers will be interpreted as having discourse-pragmatic functions, both in adult and in child speech. In languages in which casemarking is not obligatory, the potential for associating overt casemarkers with specific discourse-pragmatic and/or semantic features of their referents is further enhanced, as speakers seek to interpret and exploit the marked/unmarked contrast.

OBLIGATORY CASEMARKING IN TURKISH ACQUISITION

Dan Slobin
University of California
Berkeley, CA, USA

Turkish children quickly acquire the casemarking system, with evidence of productive use even at the one-word stage. Nominative and accusative markers are clear guides to comprehension as young as age 2, in comparison with relatively late use of such markers in comprehension tasks in Japanese, which also has "optional" use of casemarking. Thus even though Turkish, Korean, and Japanese are similar on formal typological grounds, this single factor leads to significant differences in both the acquisition and use of casemarking.

CONJOINING FINITE CLAUSES IN SEMITIC AND INDO-EUROPEAN vs. NONFINITE CONNECTIVITY IN TURKISH

Ruth Berman
Tel Aviv University
Tel Aviv, Israel

Turkish uses nonfinite forms, i.e., converbs for clause combining. Converbs function as adverbials and take their temporal specification from the tense of the main clause. The acquisition of devices of connectivity has been traced both in conversational and narrative discourse. The forms do not differ in syntactic complexity; thus the course of development is based on semantic and discourse factors. The first

forms, acquired around age 2;6, function to set reference time and are free of any restrictions on the subject. Soon thereafter, children acquire a same-subject connective that is used for narrative sequencing; much later they acquire a form that presents two phases of an event as closely related. Although converbs appear in children's spontaneous interactive discourse with adults around age 2;6, their use in complex narratives is a later development, with some forms still being mastered during the school-age period. In summary, converbs are easy and early to master for the Turkish child except in cases where the nature of the relationship between the conjoined events is a conceptually complex one.

Hebrew, by contrast, uses a variety of coordinating and subordinating conjunctions, as in Indo-European languages. Children quickly acquire the all-purpose equivalent of and', but are slower in developing temporal and causal connectives. Although both Hebrew- and Turkish-speaking children continue to elaborate discourse functions of connectives throughout the school years, there is some evidence that the syntactic simplicity of the Turkish converbs facilitates the acquisition of particular narrative functions of connectives.

ACQUISITION OF TURKISH IN A SECOND LANGUAGE CONTEXT

Ludo Verhoeven
Tilburg University
Tilburg, The Netherlands

With respect to bilingual development it is unclear under what conditions processes of language transfer take place. In the present paper the processes of acquisition of Turkish of Turkish children in the Netherlands will be explored. The focus will be on the linguistic domains of clause structure, reference to entities and reference to time. The conclusion is that the degree of language transfer in these domains is quite limited. A further perspective of the development of Turkish in the Netherlands will be presented.

INFLUENCES OF L1 TURKISH ON L2 FRENCH

Harriet Jisa   Mehmet Ali Akıncı
University of Lyons & C.N.R.S.   University of Lyons
Lyons, France

Typologically, French and Turkish are strikingly contrastive in a number
of areas (for example, in word order and in linguistic means of encoding
reference and connectivity). The purpose of this study is to determine
how Turkish influences the acquisition of French as a second language.
The study will examine the acquisition of French by Turkish immigrant
children who are essentially monolingual in Turkish until the age of
three. Particular attention will be given to errors in narrative texts
produced by French by 5-, 7-, and 10-year-old children, elicited using the
"Frog, Where are you? picture storybook. The frequency of errors, as well
as the variation of error type decreases with age. The discussion argues
that not all errors can be attributed exclusively to differences between
Turkish and French.

MONDAY   Session B
14:15 - 16:15   Room B

THE DEVELOPMENT OF DISCOURSE COHESION: COMPARATIVE PERSPECTIVES

Co-conveners: Maya HICKMANN & Genevieve DE WECK

1. BAMBERG, Michael
"The discourse cohesive function of passives: a crosslinguistic comparison"

2. KAIL, Michele
"Referent introductions in Spanish children's narratives as a function of contextual constraints: a developmental crosslinguistic study"

3. HICKMANN, Maya
"Children's marking of information status: a crosslinguistic analysis referent introductions"

4. HENDRIKS, Henriette
"Reference to person and space in narrative discourse: a comparison of child first language and adult second language acquisition"

5. DE WECK, Genevieve
"Anaphoric cohesion in young language-impaired and normally developing children"

6. MOUCHON, Serge & FAYOL, Michel
"On connectives: comparing oral, written, and metalinguistic production tests in children"

AIMS

This workshop focuses on the acquisition of linguistic devices which are necessary for the organization of information across clauses in cohesive discourse. Devices in several domains (person, space, time) are investigated, e.g., referring expressions (e.g., nominal determiners, pronouns), clause structure (e.g., passives, dislocations, subject-verb

inversions), predicate types, and connectives. Across these different domains, the major aim of all proposed analyses is to examine the development of the discourse-internal functions of linguistic devices, as well as their interactions with sentence-internal factors, within a functional approach to language development.

METHODS

All proposed contributions focus on a particular type of discourse activity, which encourages the construction of cohesive links across utterances: narrative productions. In addition, all relied on comparative methodologies in order to examine developmental processes along the following dimensions: (a) languages; (b) populations of learners; (c) contexts and discourse types; (d) modalities. These comparative methods make it possible to discover general vs. variable aspects of acquisition. In particular, they highlight processes that apply to all learning during the development of discourse cohesion and more generally during language development, while determining the extent to which the above four variables may have an impact on the developmental process.

CONTRIBUTIONS

The workshop comprises six contributions, summarized below. Four involve comparisons across languages (French, Spanish, English, German, Dutch, Chinese, Maori), using similar experimental materials (a picture book in papers 1 and 2, two picture sequences in papers 3 and 4). Two involve comparisons across populations: monolingual children, monolingual adults, adults acquiring a second language (paper 4); children with vs. without language impairment (paper 5). Two compare the impact of contextual factors: presence or absence of mutual knowledge on the part of the interlocutors (paper 2); first vs. third person narratives (paper 4). Finally, one contribution (paper 6) examines children's narrative abilities in two modalities (oral vs. written), as well as different levels of control (narration vs. metalinguistic judgments).

1. The first paper compares narratives elicited with a picture book in English, German, and Maori, with particular attention to the cohesive functions of passive utterances. Passives vary across these three languages in terms of their relative complexity (German > English > Maori), as well as in terms of their relative frequency in everyday speech (Maori > English > German). The results show that these constructions

discourse functions in German and English, but additional ones in Maori. These results are discussed in the light of the discourse vs. grammatical properties of passive structures.

2. The second paper examines how Spanish and French children (3 to 10 years) introduce animate protagonists in two narrative situations: mutual knowledge (joint perception) vs. no mutual knowledge (naive blindfolded listener). Three patterns recur across languages: a) more frequent uses of indefinite forms in the absence than in the presence of mutual knowledge, particularly from 9 years on; b) fewer indefinite forms for main protagonists than for secondary ones; c) an association between NP forms and roles (definite-subject, indefinite-nonsubject). However, crosslinguistic differences occur with respect to clause structure: Spanish introductions frequently co-occur with subject-verb inversions, particularly in the absence of mutual knowledge.

3. The third paper compares narratives produced by English, French, German, and Chinese adults and children (4 to 10 years) in the absence of mutual knowledge, focusing on the introductions of animate protagonists and of inanimate referents localizing them in space. In all languages newness markings emerge late (6-7 years) for both referent types and nominal determiners emerge before clause structure, whether they are obligatory or optional in a given language. However, newness markings also vary as a function of referents in all languages, e.g., world knowledge has a greater impact on locations, and as a function of languages, e.g., indefinite determiners are least frequent in English, clause structure variations most frequent in French and Chinese.

4. The fourth paper compares children's first language (L1) and adults' second language (L2) acquisition, focusing on referent introductions in narratives produced by the following groups: German and Chinese monolingual adults and children (a subset of the corpora from paper 3); Chinese adults acquiring German at four levels of competence. The aim is to differentiate the development of general discourse skills from the acquisition of the necessary language-specific devices. In contrast to L1, L2 shows no progression with respect to the first type of process, e.g., adult learners systematically use newness markings from the earliest proficiency level onward, even if these markings do not correspond to the target language.

5. Comparisons across learners are also at the center of the fifth paper which examines narratives produced by children (4 to 6 years) displaying a normal vs. impaired language development. Particular attention is placed on cohesive links created by means of referential devices

introducing referents and maintaining reference in these two types of populations. In addition, both populations were asked to produce two types of narratives: narratives of personal experience and narratives involving a fairy tale. Differences across the two populations in both types of productions are interpreted as showing the existence of cognitive operations at different levels.

6. The last paper compares processes of narrative organization across the oral and written modalities, with particular attention to children's acquisition of connectives for the interclausal organization of narratives. French children were asked to recall orally (5, 6, 8 years) or in writing (8, 10 years) different types of stories (with or without complications) that did not contain connectives. In addition, it examines different levels of control involved in the use of linguistic devices by comparing story recall with the ability to produce metalinguistic judgments. The results show an early ability to produce and judge these devices in both modalities.

DISCUSSION

The synthetic discussion of these six papers will focus on the following aspects of language acquisition:
1) the relative impact of sentence-internal vs. discourse functional determinants, i.e., semantic/syntactic properties of utterances vs. pragmatic ones, such as reliance on world knowledge and on principles governing the regulation of information flow across utterances;
2) general and universal aspects of acquisition vs. variations as a function of the following dimensions:

a) properties of the linguistic systems to be acquired;
b) cognitive properties of the learners acquiring these systems;
c) properties of the channels used by learners when communicating;
d) properties of the discourse contexts in which they communicate.

THE DISCOURSE-COHESIVE FUNCTION OF PASSIVES: A CROSSLINGUISTIC COMPARISON

Michael Bamberg
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Passives are commonly described as moving non-agentive elements of the sentence into subject position (Givon 1979), or as moving a less

topical agent out of subject position (Van Oosten 1985). The function of the passive as contributing to discourse cohesion in narratives (Bamberg 1991; Berman & Slobin 1994) is often viewed as operating on the basis of these two syntactic functions, and, with few exceptions, investigations into this topic are often restricted to Indo-European languages.

The present study is based on narrative data from three languages (American-English, Maori, and German) and examines the discourse role of passive constructions in children from 5- to 10- years and in adults. The narratives stem from the tellings of the 24 page wordless picture book "Frog, Where Are You?," following the elicitation procedure outlined in Berman & Slobin (1994). The three languages investigated differ considerably with regard to the commonality of passive constructions in everyday discourse: Maori deploying passives frequently, German rarely, with American-English taking somewhat of a middle position [exact figures from everyday discourse are not available]. In addition, the formation of passive constructions can be argued to vary in these three languages in terms of "complexity" (Berman & Slobin 1994) with German as most complex, and Maori as least complex.

The analysis of passives in the collected corpus of Frog-Stories reveals that Maori-speaking children use passives earlier in age, and more frequently than American-English-speaking children; and German-speaking children later in age, and less frequently than American children. With regard to how (where) passives are used in the "Frog, Where Are You?" narratives, German- and American-English-speaking subjects across all ages seem to deploy the passive construction for a similarly cohesive text-building function. Maori-speaking children, however, deploy passives for additional text-building functions.

In the concluding discussion, I will center on the discourse role of grammatical constructs such as passives in a crosslinguistic approach to narrative development.

Bamberg, M. (1991). Narrative activity as perspective taking: The role of emotionals, negations, and voice in the construction of the story realm. Journal of Cognitive Psychotherapy, 5, 275-290.

Berman, R. & Slobin, D.I. (1994). Relating events in narrative. A crosslinguistic study. Hillsdale, NJ: Erlbaum Associates.

Givon, T. (1979). On understanding grammar. New York: Academic Press.

Van Oosten, J. (1985). The nature of subjects, topics and agents: a cognitive explanation. Bloomington: Indiana University Linguistics Club.

REFERENT INTRODUCTIONS IN SPANISH CHILDREN'S NARRATIVES AS A FUNCTION OF CONTEXTUAL CONSTRAINTS: A DEVELOPMENTAL CROSSLINGUISTIC STUDY

Michele Kail
University of Rene Descartes & CNRS
Paris, France

The aim of the present study is twofold. The first is to compare systematically how Spanish children of 6, 9, and 11 years and adults (control group) use referring expressions in narratives produced in two situations where they either could assume mutual background knowledge of the narrated content (Situation MK) or could not make this assumption (Situation NMK), while holding this content constant by means of a picture book (Frog story, Mercer Maier, 1967). The second aim is to compare these results to previous ones obtained with French children. The results can be summarized as follows.

1. Overall, first mentions of animate referents are more frequently indefinite than definite. As expected, Situation NMK elicits more indefinite first mentions than Situation MK and these contextual constraints are more marked for the main characters than for the secondary ones. The developmental pattern indicates that 9 years is the critical age at which Spanish children begin to use more indefinite first mentions in both communicative contexts MK and NMK, but this pattern is restricted to the main characters. The comparison with French data reveals similarities with respect to forms, but developmental differences with respect to situations.

2. With respect to the syntactic roles of first mentions (subject vs. nonsubject), the results show that at all ages and in both situations most of the definite first mentions are in subject roles, whereas most of the indefinite ones are in other roles. Moreover, main characters are introduced as nonsubjects more frequently with age. By contrast, secondary ones tend to be introduced more frequently as subjects with age. Such results are in conformity with previous ones obtained with French children.

3. Finally, an important result concerns two types of clause structure in which first mentions occurred: NOUN-VERB (NV) vs. VERB-NOUN (VN). The global analysis for all animate referents indicates that the introductions of Spanish children and adults are significantly more frequently part of VN structures as compared to NV ones. There is a significant effect of situation: NMK elicits more VN first mentions than MK, but this contrasted effect concerns only the main protagonists. For these referents the dominant pattern of first mentions is indefinite-nonsubject-VN: this pattern increases regularly with age.

In conclusion the results are discussed in the light of various constraints: linguistic ones, especially the impact of clause structure which sheds light on the ways in which children use word order as a communicative device, and contextual ones, especially shared knowledge, with special attention to their interactions during development.

CHILDREN'S MARKING OF INFORMATION STATUS: A CROSSLINGUISTIC ANALYSIS OF REFERENT INTRODUCTIONS

Maya Hickmann
University of Rene Descartes & CNRS
Paris, France

This paper examines the acquisition of various devices necessary for the marking of given vs. new information status in discourse. Particular attention is placed on how children (4 to 10 years) and adults introduce referents in narratives across four languages: English, French, German, and Mandarin Chinese. In each language, the data base consists of narrative productions elicited on the basis of two picture sequences in the absence of mutual knowledge (naive blindfolded interlocutor). The analyses focus on the introductions of two types of referents: the animate protagonists and the inanimate referents serving to locate them in space.

Two types of devices are examined: nominal determiners ('local devices') and NP position in different utterance structures ('global devices'). The languages compared rely differentially on these devices to mark referent introductions: indefinite determiners are obligatory in the three Indo-European languages, postverbal position in Chinese. However, principles governing the marking of newness differ in important ways depending on referential domain, e.g., world knowledge plays a more important role for

the use of local devices introducing inanimate localisations as compared to animate protagonists. Furthermore, global markings interact with other aspects of the utterance, such as predicate types (e.g., verb-argument structure, change of location or not).

In all languages the ability to mark referent introductions is a late development (67 years), regardless of referent type. However, newness markings also vary as a function of referents. With respect to the animate protagonists, three results can be observed in all languages: a) obligatory newness markings emerge late; b) local markings emerge first, regardless of their obligatory vs. optional nature; c) local/global markings interact with each other. However, the timing of acquisition varies across languages for both local devices (latest in English) and global ones (earliest in French and Chinese). With respect to inanimate spatial reference points, a clear developmental progression can be observed across languages in the setting of spatial frames at the beginning of the story. Crosslinguistic variations also occur in the frequency of local markings used to first mention these frames, as well as in the use of NP position in interaction with predicate types.

It is concluded that three factors jointly determine the acquisition of newness markings: 1) universal discourse factors, including principles which govern information flow across utterances and world knowledge in relation to referent properties; 2) universal cognitive factors resulting from the greater functional complexity of global markings; 3) language-specific factors related to how different systems map both grammatical and discourse functions onto forms.

REFERENCE TO PERSON AND SPACE IN NARRATIVE DISCOURSE: A COMPARISON OF CHILD FIRST LANGUAGE AND ADULT SECOND LANGUAGE ACQUISITION

Henriette Hendriks
Max Planck Institue for Psycholinguistics
Nijmegen, The Netherlands

This paper focuses on the acquisition of German and Chinese linguistic devices necessary for the expression of reference to person and space by adult learners (L2 acquisition) as compared to children (L1 acquisition). Particular attention is paid to how both types of learners introduce protagonists and their locations and maintain reference to them at the sentence and discourse levels.

At the sentence level, information must be expressed in grammatically well-formed utterances. At the discourse level, the flow of information must be regulated across utterances, e.g., speakers must introduce, maintain, and switch reference as utterances unfold. Systemic differences across languages present the learners of these languages with different problems to solve during the acquisition process. In addition, two kinds of knowledge are involved in different ways during L1 and L2 acquisition. The first kind roughly corresponds to the universal ability to organize discourse, while the second kind is associated with learning the necessary language-specific devices. It is assumed that children have to develop both kinds of knowledge simultaneously, whereas adults already have developed the first kind fully.

The data consist of narratives produced in a situation of no mutual knowledge, on the basis of two picture sequences by: (1) 4- to 10-year-old monolingual Chinese and German children; (2) monolingual Chinese and German adults; (3) Chinese adults learning German at 4 different proficiency levels.

Results in previous studies on L1 acquisition show that children do not distinguish given vs. new information until relatively late. They furthermore show differences in how children begin to mark this distinction across languages, depending on the means available in the language they are acquiring. It was also found that marking information status is more consistent for reference to person than for reference to space. L2 learners mark information status from the earliest proficiency level on. A progression is found only in the correctness of forms (i.e., less gender and case errors with proficiency). Differences between reference to person and space in the marking of information status is less clear than in the L1 data. In reference maintenance, interesting differences were found in the degree to which children vs. adults seem to rely on discourse, i.e., their uses of pronouns (more extensive in L1 than in L2 data), and in the way in which the different learners deal with problems at the discourse level when spatial frames have not been set at the appropriate time in the narrative.

The discussion focuses on how the two kinds of knowledge on the one hand, and language-specific differences on the other hand affect the developmental course of L2 vs. L1 learners.

ANAPHORIC COHESION IN YOUNG LANGUAGE-IMPAIRED AND NORMALLY DEVELOPING CHILDREN

Genevieve De Weck
University of Neuchatel
Neuchatel, Switzerland

We present in this paper data concerning the development of anaphoric cohesion based on a research project concerning developmental language disorders (DLD) in 4- to 6-year-old children. The general framework of this program is based on an interactionist psycholinguistic approach. Children were placed in several interactive situations in which they communicated orally two types of texts to an adult: narratives of personal experience and the narration of a fairy tale. Children's linguistic productions were analyzed according to several complementary aspects: degree of dialogism (i.e., given children's age and impairment, they produce few self-regulated stretches of discourse); type of planning (i.e., organisation of different sequential productions in terms of scripts, narrative schema, interactive phases, etc.); anaphoric cohesion (introduction and maintenance of referents).

Particular emphasis is placed on the analysis of the modes of introduction of referents (types of linguistic units and relations to the context of production) and modes of anaphoric procedures (types, values, functions, and amount of linguistic units) according to a methodology developed in previous work (de Weck, 1991). Two types of comparisons are made. First, the personal accounts are compared to the narrations. The observed differences between the two types of texts (in particular amount and types of linguistic units) are interpreted in relation to the characteristics of the two situations (nature of contextual aspects) and of the two other domains studied (dialogism and planning). Second, DLD children are compared to normal children of the same age in the same experimental conditions. Data concerning normal and pathological development in young children are discussed on the basis of different levels of linguistic operations which can explain the differences observed across populations.

Reference: de Weck, G. (1991). *La cohesion dans les textes d'enfants.* Neuchatel-Paris, Delachaux & Niestle.

ON CONNECTIVES: COMPARING ORAL, WRITTEN AND METALINGUISTIC PRODUCTION TESTS IN CHILDREN

Serge Mouchon
University of Rene Descartes
Paris, France

Michel Fayol
LEAD /CNRS, University of Bourgoigne
Dijon, France

Over the past two decades, most studies of connectives have dealt with children in situations of oral production (Nelson, 1986; McCabe & Peterson, 1991). The studies have shown that preschool children are able to appropriately employ words such as if, and, before, after (French & Nelson, 1985). The use of these connectives depends both on the pragmatic conditions and on the child's developmental level (Bennett-Kastor, 1986). Studies on writing (Fayol, 1991) have indicated that writing follows similar tendencies to those observed for speech, with the order of appearance being the same (and, then, but) but with a lag of three or four years relative to the spoken language. The reasons of this lag are unclear.

The following experiments aimed at showing that children are able to use the appropriate connectives, in both the oral and written production, and even in metalinguistic tests. provided that the events being recounted justify their use. In the production tests 5, 6, 8 and 10 year-old children were asked to recall in the oral (5, 6 and 8 y.-o.) or in the written (8 and 10 y.-o.) modality several sequences of events involving or not complications and presented without connectives. In the metalinguistic test, 6, 8 and 10 y.-o. children had to select among several provided items the one which the best (vs. the worst) fitted the connective slot between the setting and the ending of short narratives.

The analysis of the oral and written recalls as well as the data collected in the metalinguistic task showed that even very young children were able to produce and assess the relevance of connectives such as and, afterwards, but and suddenly.

TUESDAY   Session C
14:15 - 15:45   Room C

CHILDREN WITH LANGUAGE IMPAIRMENT: LONGITUDINAL CONSIDERATIONS

Convenor: Gina Conti-Ramsden

Leslie Rescorla
Nadia Riberio Salomao
Nicola Botting & Alison Crutchley
Gina Conti-Ramsden
Discussant: Catherine Snow

The proposed symposium will involve four papers all involving longitudinal analysis of the language of children with specific language impairment. The symposium will conclude with a presentation by the disseminate which will draw conclusions on a number of issues with particular attention to those related to longitudinal research with such children.

COMMUNICATIVE STYLE IN LATE TALKERS: EFFECTS OF PARTNER, CONTEXT, AND AGE

Leslie Rescorla
Bryn Mawr College
Bryn Mawr, PA, USA

Results will be presented from two related investigations comparing a sample of 30 toddlers manifesting specific expressive language impairment (SLI-E) with a sample of normally developing children matched on age, SES, and nonverbal cognitive ability. The children with SLI-E, 24-to-31 months at intake and 3 years of age at follow-up, were characterized by normal nonverbal cognitive ability, age-adequate receptive language, but significant delay in expressive language.

Major results from the study of communicative style during free play at intake were that toddlers with SLI-E communicated less frequently than typically-developing toddlers. However, they did not differ from the

comparison peers in the proportion of their interactions that were initiations vs. responses, in their degree of responsiveness to requests/questions, or in their proportion of joint attention interactions. Both groups of children responded more to their mothers (who provided more opportunities to respond) but initiated more with the examiner (who was instructed to be passive).

Major results of the mother-child book reading study parallel those of the play study, with few between-group differences found in interactional patterns. A greater number of interactive turns took place at age 2 during the picture-book reading task than at age 3, during which a story was read. During the age 3 session, mothers read text more, made fewer requests requiring responses, and therefore spent less time listening to their children talk. However, this pattern appeared to be more common with the typically-developing children than with the youngsters with SLI.

MOTHER'S USE OF RECAST WITH CHILDREN WITH SLI

Nadia Riberio Salomao
University of Manchester
Manchester, UK

Child's language advances in large part are due to the child's successful analysis of sentences more complex than those in his/her system already. Therefore conversational partners who use such sentences in direct, topic-continuing replies to the child's utterance may thereby facilitate language acquisition (Nelson, 1987). These contingent utterances are referred to as recasts.

Although there are some studies that compares the use of recasts by mother's of specific language impaired children and normal language developing children (Conti-Ramsden, 1990) there is a dearth of information about the use of recasts by mothers in relation to changes in the child's syntactic and pragmatic abilities across time.

By analysing the changes in the level and function of the recast it is possible to verify how well tuned these changes are in relation to the abilities shown by the child and can also be an indicative of how much the mother is controlled by the language level of the child.

Besides the contingency and pragmatic analysis, the use of spontaneous speech by the SLI child and how this speech develops in conversation

across time will be discussed for three mother-child across a two year period.

CHARACTERISTICS OF 7 YEAR OLD CHILDREN WITH SPECIFIC LANGUAGE IMPAIRMENT

Nicola Botting   Alison Crutchley
University of Manchester
Manchester, UK

The present research project will describe the linguistic characteristics of 200 children with specific language impairment (SLI) attending their last year in infant language units and their development over on year period.

The identification of children with specific language impairment (SLI) is a universally recognized and continuing challenge for clinicians and researchers interested in understanding and helping such children (Lahey, 1988: McCauley & Demetras, 1990). The identification of children with SLI is particularly complicated given the heterogeneity of the language problems present in these children (Stark & Tallal, 1981), the diversity in the aetiology of SLI (Leonard, 1987), and our lack of understanding of the factors affecting prognosis (Bishop & Edmundson, 1987). In addition, the identification of children with SLI rests mainly on exclusion criteria. SLI is defined as impaired language development with several factors not considered at present, including the following: not the result of sensory impairment: not the result of emotional and/or behavioural problems; not associated with global cognitive impairments (Bishop & Rosenbloom, 1987).

Of particular concern is the issue of distinguishing those children who have transient SLI from those who have more persistent impairments. In a recent study by Bishop and Edmundson (1987) it was found that approximately 37% of children who were found to be SLI at 4 years of age were no longer so by 6:6 years of age. Interestingly, they also found that 22% of the SLI children referred to in their study actually had global cognitive delays as measured by a performance of two standard deviations below the mean in the Leiter test of non-verbal ability (Leiter, 1948). These globally delayed children had much poorer prognoses than children without such cognitive impairments. Similar findings can be found in the study by Stark and Tallal (1981) where the global delay group formed some 38% of children in their study of SLI.

Another issue involves the division of SLI into 'receptive' and 'expressive'. It had been thought that receptive impairments had concurrent expressive problems as the result of input difficulties, whilst expressive difficulties were thought to be relatively 'pure' with comprehension unaffected. Recent research, nevertheless, has challenged this dichotomy and shown that children with expressive SLI appear to have some degree of comprehension problems (Bishop, 1979; Adamas, 1990). It would be of particular interest for research to continue to look more closely at the possible comprehension problems of children with SLI. Their study will provide information on the above issues with a large covert of children with SLI.

SYNTACTIC DEVELOPMENT: CHILDREN WITH SLI

Gina Conti-Ramsden
Univeversity of Manchester
Manchester, UK

The aim of the present study is to further out knowledge of children with specific language impairment (SLI). Children with SLI are children who have difficulties acquiring spoken language but have adequate intelligence, hearing sensitivity and appear normal in all aspects except language. The investigate will study longitudinally the grammatical aspects of language development of three children with specific language impairment and compare it to the development of their younger normal language learning siblings of the same language stages. Particular attention will be paid to children's use of verbs as they learn language over a period of 12 - 18 months. It is thought that children with specific language impairment may have particular difficulties learning verbs as well as other grammatical distinctions including grammatical morphemes such as plural "s" (cat -> cats) and present progressive 'ing' (jump - jumping) and a longitudinal study across time may be able to reveal specific areas of weakness in the developing grammatical system of children with specific language impairment.

DISCUSSANT

Catherine Snow
Harvard University
Cambridge, MA, USA

TUESDAY   SESSION B
14:15 - 15:45   Room B

INTENTIONALITY AND SOCIAL UNDERSTANDING
IN INFANT COMMUNICATION

Convenors: Martyn Barrett, University of Surrey, Surrey, UK
           Vasudevi Reddy, University of Portsmouth, Portsmouth, UK.

Dankert Vedeler, Norwegian University of Science and Technology, Trondheim,
Norway. THE INTENTIONALITY STRUCTURE OF COMMUNICATION.

Colwyn Trevarthen, University of Edinburgh, Edinburgh, UK. INNATE
SYMPATHETIC MOTOR IMAGES 'KNOW' THE SELF, THE OTHER, AND THEIR
POSSIBLE RELATIONS.

Vasudevi Reddy, & Riccardo Draghi-Lorenz, University of Portsmouth, Portsmouth,
UK. GAZE AND EMOTION IN INFANT COMMUNICATION.

Luigia Camaioni, University of Rome, "La Sapienza", Rome, Italy. A COMPARISON
OF GESTURAL COMMUNICATION IN INFANTS AND CHILDREN WITH
AUTISM.

John L. Locke, MGH Institute of Health Professions, Boston, MA, USA. WHY DO
INFANTS BEGIN TO TALK?

Discussant: M. Suzanne Zeedyk, University of Dundee, Dundee, UK.

INTRODUCTION

In the 1970s, an issue which received considerable attention was the extent to which
the pre-linguistic infant's communications are intentionally or only fortuitously
communicative. Different theoretical positions concerning the issue of intentionality
(e.g. those advocated by Trevarthen, Kaye and Bates) offered different interpretations
of the same infant behaviours, and were based upon different assumptions concerning
both the inherent sociality of the newborn baby and the subsequent shifts in
communicative behaviour which occur during infancy.

In recent years, there has been a resurgence of interest in these issues, fueled in part by advances made in the understanding of young children's conceptions of other people's minds (which has led to a re-examination of the infant's proto-declarative and protoimperative behaviours in particular); and in part by new observations concerning the co-regulation and emotional dynamics of mother-infant interaction.

This workshop will bring together within a single forum some of the most prominent figures who are currently working within this field. The aims of the workshop are threefold: (i) to identify the positions which are adopted by different contemporary theorists; (ii) to map out some of the more prominent theoretical divergencies which exist; and (iii) to take stock of our current knowledge of the social understanding of infants and of the intentionality of their communications with other people.

WORKSHOP CONTENTS

The workshop will contain five presentations, a discussant's overview, and an open discussion with the audience.

Presentation 1 will be entitled "The Intentionality Structure of Communication". Starting from a definition of intentionality in terms of object directedness, this presentation will be based upon Trevarthen's description of the development of infant intentionality. In a previous study, the observation of object directedness was used to track the development of communicative intentionality (dominating at 2-3 months of age) and the development of intentionality directed towards the physical world (predominant between 4 and 8 months). According to Trevarthen, from 9 months onwards, the infant coordinates communicative and physical intentions; this achievement lays the foundation for the development of knowledge, cooperation and language. The study which will be reported here investigated this coordination of physical and communicative intentions. Using object directedness as an observational basis, precursors of coordinated intentions were studied in order to obtain a better understanding of the coordination process.

Presentation 2 will be entitled "Innate Sympathetic Motor Images 'Know' the Self, the Other, and their Possible Relations". This presentation will summarize some recent developments in Trevarthen's account of infant communication. Analyses of the infant's abilities to interact with others, by means of movements that express coordinated and intentionally regulated motives, cast doubt on theories postulating that intentions are derived from experiential input. Neonatal imitation, protoconversations, and infants' responses to music demonstrate rhythmic and prosodic regularities that match those of sympathetic adult partners. Many of the parameters of such human expression do not develop; they are universal in humans and consistent through life. It is argued that such regularities in motor initiative and intentional variation of expression require proper account to be taken of the initial psychological state of the newborn (consequent on the prenatal development of intentional and emotional

predispositions). Infants' intentions, however, do develop, and eventually lead to cooperative understanding of linguistic and pragmatic meanings.

Presentation 3 will be entitled "Gaze and Emotion in Infant Communication". The presentation will deal with the significance of mutual gaze and emotional responsiveness in infant communication. Mutual gaze has been used to impute knowledge of agency, knowledge of attention, and knowledge of intention. However, mutual gaze arouses emotional responses (e.g. shy/coyness) in young infants, implying that there is an early emotional link to others' attention and suggesting that communicative intentions are better conceived in emotional than in cognitive terms. Charting emotionality in communication would seem to offer a better tool for tracing the development of interpersonal understanding through communication.

Presentation 4 will be entitled "A Comparison of Gestural Communication in Infants and Children with Autism". There are many similarities in the use of communicative gestures by normal infants and children with autism. For example, both groups produce requests for objects, actions and social routines. However, there are also differences. Children with autism use gestures such as pointing and showing for declarative purposes less frequently than normal infants, and young autistic subjects are more able to use distal gestures to .request objects and events than similar gestures to initiate joint or socially shared attention. This presentation will examine the explanation of this pattern of similarities and differences. The possible role of the following factors will be considered: socio-emotional sensitivity, sensitivity to eye contact and gaze, understanding of human agency, understanding of subjectivity.

Presentation 5 will be entitled "Why Do Infants Begin to Talk?". Scholars have neglected to ask why infants begin to talk. Biologists often prefer ' how' to ' why' questions, but it is possible to ask about the immediate consequences of developing behaviours - an acceptable strategy for attacking causation - and psycholinguists can study the immediate consequences to the infant of behaviours that lead to linguistic competence. This argument will be illustrated by looking at the consequences of vocal learning, utterance storage, and the act of talking itself. The goal will be to encourage investigation of behavioural dispositions that nudge the child towards proficiency in the use of spoken language.

The discussant's presentation will draw upon the five presentations in order to categorize the theoretical positions in this field. Some theorists adopt cognitive approaches to intentionality and social understanding in infancy; these approaches can be further subdivided in terms of whether they propose an early or late acquisition of communicative intentions. Other theorists adopt social approaches to these issues, for example, "as-if" theories, and theories which attribute an inherent socio-emotionality to the newborn. This categorization of theoretical positions will be used to structure the workshop discussion.

TUESDAY   SESSION C
14:15 - 15:45   Room C

THE EMERGENCE OF TENSE-ASPECT MORPHOLOGY:
IS IT DRIVEN BY INPUT OR UNIVERSAL PREDISPOSITION?

Convenors: Richard Weist & Yasuhiro Shirai

Richard Weist, SUNY College at Fredonia, Fredonia, NY, USA. CONSTRAINTS ON THE ACQUISITION OF TENSE AND ASPECT.

Yasuhiro Shirai, Daito Bunka University, Tokyo, Japan. EARLY TENSE/ASPECT MORPHOLOGY IN ENGLISH AND JAPANESE: SIMILARITIES AND DIFFERENCES.

Ayhan Aksu-Koc, Bogazici University, Istanbul, Turkey. THE EMERGENCE OF TENSE-ASPECT MORPHOLOGY IN TURKISH.

Heike Behrens, Max Planck Institute, Nijmegen, The Netherlands. EVIDENCE FOR SEMANTIC AND MORPHOLOGICAL SOPHISTICATION IN EARLY TENSE USE BY GERMAN CHILDREN.

Magdalena Smoczynska, Jagiellonian University, Krakow, Poland. ACQUISITION OF POLISH TENSE AND ASPECT SYSTEMS REVISITED.

Discussant: Dan I. Slobin, University of California, Berkeley, CA, USA.

The early development of verb morphology, particularly tense-aspect morphology, has attracted much attention in language acquisition research. In particular, the issue of whether children's early acquisition is constrained and/or guided by universal predisposition has been an important issue. This workshop addresses this issue with particular emphasis on crosslinguistic comparisons. The purpose of the workshop is to present data on the emergence of tense/aspect morphology from various languages to determine whether such predisposition is present.

Slobin (1985) proposed that children apply a set of linguistic information processing principles in constructing a grammar, which he called Basic Child Grammar. Basic Child Grammar (BCG) is hypothesized to universally orient a child so that the basic notions that first receive grammatical expressions are the same regardless of input

language. In the acquisition of tense/aspect morphology, the proposed universal notions to be grammaticized early are RESULT and PROCESS, of which empirical consequences are early acquisition of past, perfective, and perfect morphology with punctual, completive events with visible consequences, while present, progressive, and imperfective forms of verbs emerge with nonpunctual/noncompletive and ongoing events. Bowerman (1985), challenging Slobin's BCG, argued that it is the way the input language is structured that determines patterns of early child language, not BCG. One testing ground in which Bowerman chose to challenge BCG was the acquisition of temporality, and the test was whether children give early past marking to "activities in the past." Citing Weist et al.'s (1984) Polish data, which shows early past marking with activity verbs, she concludes that BCG is not at work in acquisition of tense/aspect.

Although this is an important issue in child language acquisition, there has not been much attempt made to further address this issue in light of crosslinguistic empirical data. This workshop focuses on this issue, and in addition, attempts to explicate what 'shapes' the forms of children's early grammar in the area of tense and aspect.

There are five papers to be presented, followed by a discussant's comments. The first paper provides the background to the problem, and the rest of the papers discuss the issue in relation to empirical data of different languages (Turkish, German, English, Japanese, and Polish).

(paper 1)Constraints on the acquisition of tense and aspect. This paper reviews the status of three types of constraints on the acquisition of tense and aspect morphology: cognitive prerequisites, Basic Child Grammar, and syntactic structure of the target language. It is argued that an integrated theory is needed for an adequate explanation for the acquisition of tense and aspect morphology.

(paper 2)The emergence of tense-aspect morphology in Turkish. In a previous study (Aksu-Koç, 1988), Turkish children between 19-24 months have exhibited a stage of development where they mark both RESULT (with past perfective marker -dI) and PROCESS (with nonpast imperfective marker -Iyor). Based on the data from a younger child (15 to 19 months), this paper shows that perfective past marker -dI) emerge around 17 months with achievement verbs to mark RESULT perspective, while PROCESS perspective is marked two months later with two imperfective forms -Iyor and -Ir with restricted verbs that refer to present noncompleted activity. It is argued that Turkish data supports Slobin's BCG.

(paper 3)Evidence for semantic and morphological sophistication in early tense use by German children. This paper discusses the data of 7 children acquiring German, and claims that Slobin's BCG was only partially supported. Although a great portion of first past tense usage encodes resultative events as predicted, the children use tense marking also in its deictic function to encode reference to remote past and non-resultative events. The observation that German children can use two different forms of past

marking (preterit and perfect) appropriately also supports that children can be guided by the structure present in the input from the start.

(paper 4)Early tense/aspect morphology in English and Japanese: Similarities and differences. This paper reports studies on the emergence of English past and progressive morphology and their counterpart in Japanese by analyzing longitudinal corpora. The difference between the way the English and Japanese tense/aspect systems are organized is that Japanese progressive marker -tei can also refer to resultative state when it is attached to achievement verbs. The analysis reveals that early past tense marking in both languages appears predominantly with achievement verbs, thus supporting Slobin's BCG. In addition, early progressive marking in English appears predominantly with activity verbs referring to action in progress, also in accordance with BCG. However, the pattern for the Japanese counterpart -tei exhibits individual differences. The paper also discusses the analysis of child-directed speech to test the hypothesis that children s use of early morphology is driven by the pattern exhibited in the input.

(paper 5) Acquisition of Polish tense and aspect systems revisited. This paper reports the results of an analysis of verb forms in seven Polish corpora covering the period from the onset of speech to the age of 5;0, which includes approximately 80,000 verb forms. In relation to the issue of BCG, the paper discusses debate concerning Polish acquisition between Weist and Bloom. It will be argued that the present analysis corroborate Weist et al.'s findings that children acquire tense and aspect marking simultaneously. It will, however, be demonstrated that in Polish you have no other choice because tense and aspect are so entangled that they are dependent on each other.

The discussant will synthesize all five papers and discuss the empirical, methodological, and theoretical issues to be resolved. Suggestions for future research will be made to further address the problem from a crosslinguistic perspective.

In the discussion that will follow, we invite comments from the audience, particularly from those who have worked in languages that have not been discussed in the presentations.

WEDNESDAY   Session A
9:00 - 10:00   Room A

LEARNING TO STRUCTURE SPACE FOR LANGUAGE:
A CROSSLINGUISTIC PERSPECTIVE

Convenor: Melissa Bowerman

Melissa Bowerman, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands. INTRODUCTON.

Soonja Choi, San Diego University, San Diego, CA, USA. DEVELOPMENT OF SPATIAL SEMANTIC CATEGORIES: A CROSSLINGUISTIC STUDY.

Lourdes de Leon, Reed College, Portland, Oregon, USA. THE ACQUISITION OF PATH IN TZOTZIL: COGNITIVE VS. LINGUISTIC DETERMINANTS.

Dedre Gentner, Nothwestern University ,Evanston, IL, USA. CROSSLINGUISTIC DIFFERENCES IN THE LEXICALIZATION OF SPATIAL RELATIONS AND EFFECTS ON ACQUISITION.

OVERVIEW

For many years, space has served as a paradigm case for the "cognition hypothesis"-the proposal that children initially map morphemes onto conceptual notions they have already established on a nonlinguistic basis. Within and across languages, spatial morphemes are acquired over time in a relatively uniform order. This protracted and consistent order, coupled with its correspondence to Piaget's claims about the sequence of development of different kinds of spatial knowledge was taken as strong evidence that the learning of locatives is guided and paced by the maturation of the relevant spatial notions (Johnston &. Slobin, 1979). The hypothesis of cognitive primacy took on added plausibility from the claim that the properties of spatial language are heavily constrained by the way human beings perceive and conceptualize space (e.g., H. Clark, 1973; cf. also Landau & Jackendoff, 1993).

In the last few years, however, the assumption of cognitive primacy in spatial semantic development has come under fire. First, crosslinguistic comparisons show that languages are by no means uniform in the way they structure spatial meanings; e.g., not all languages have morphemes corresponding semantically to *in, out, on, off, up,*

and *down* (Bavin, 1990; Bowerman,1989; Brown,1994) -- locatives that are learned very early by English-speaking children. Second, crosslinguistic comparisons show that learners may begin to grasp language-specific principles of spatial classification at a remarkably young age -- by two years or before (Choi & Bowerman, 1991). These findings suggest that spatial semantic development is not, after all, properly characterized as a one-way mapping from cognition to language. Instead, it seems to involve pervasive interactions between nonlinguistic spatial understanding and the semantic structure of the input language.

The proposed workshop will explore this interactive process by comparing how children talk about spatial motions and positions (paths, in Talmy's [1985] terminology) in four different languages -- **English, Dutch, Korean,** and **Tzotzil Mayan.** These languages differ strikingly in how they categorize spatial relations to do, for example, with containment, surface contact, encirclement, separation and joining, and motion up and down. They also differ typologically (cf. Talmy, 1985) in WHERE in a clause they characteristically express spatial meanings: in particles and prepositional phrases (English, Dutch), verbs (Korean), or both particles and verbs (as suggested by *extract it out*, Tzotzil).

Drawing on crosslinguistic studies of spontaneous speech data, of elicited speech production, and of preferential looking behavior, workshop participants will discuss (1) whether and how children are biased, independently of the input language, toward certain ways of grouping and distinguishing among spatial relations, (2) how the spatial categories of the input language interact with nonlinguistic biases in children's development of spatial semantic categories, and (3) the effect of exposure to languages that differ typologically in their expression of space.

Individual Contributions

The four workshop participants -- two psychologists and two linguists -- have worked together, in various collaborative combinations, with a shared sense of how to conceptualize the problem of studying spatial semantic development crosslinguistically. The planned division of labor is as follows:

Presenter 1, the organizer will introduce the topic of the workshop along lines suggested in the Overview above. She will then briefly review research, conducted together with Presenter 2, on the spontaneous encoding of motion by learners of English and Korean. This research suggests that by the time children begin to use spatial words productively, around 18 months, they already show sensitivity to language-specific aspects of spatial semantic organization. Presenter 1 will conclude with questions about HOW the linguistic input interacts with nonlinguistic spatial understanding, which will be addressed in the subsequent presentations.

Presenter 2 will report an elicited production study, conducted with Presenter 1, in which learners of English, Korean, and Dutch, age 2-3;6, and adults, were asked to describe a variety of topological spatial actions (putting things in, on, out, off, etc.). This study quantitatively confirms that language specificity is established very early, but extends previous research by showing that some spatial distinctions are more accessible to learners than others. The ease with which children acquire particular distinctions is influenced not only by the inherent difficulty of the distinctions for learners (see Presenter 4), but also by factors like the frequency and consistency with which the distinctions are modeled in the adult input and the exact shape of the semantic categories. Presenter 2 will also discuss the results of crosslinguistic (English, Dutch, Korean) preferential looking studies that explore at what age language specificity can be detected in comprehension, and the relative accessibility to learners of different spatial distinctions.

Presenter 3 will first sketch the spatial semantic system of Tzotzil, a Mayan language spoken in Mexico, and then discuss how her data from both longitudinal spontaneous speech samples (from children about 1;7 to 4;0) and elicited production (using the same materials as in the elicited production study described by Presenter 2) adds to findings from English, Dutch, and Korean: e.g., learners of all four languages categorized spatial motions language-specifically, but they showed similarities as well, e.g., finer and more accurate discrimination of actions of "joining" than of actions of "separation". Presenter 3 will also consider role of typology: in particular, Tzotzil learners' initial preference for spatial VERBS -- even though, as in English, directional PARTICLES receive stress in verb-particle combinations -- casts doubt on long-held views of why particles are so prominent in the early speech of children learning Germanic languages.

Presenter 4 examines why some spatial semantic distinctions are harder for children than others (cf. Presenter 2). In particular, she hypothesizes that the ease with which distinctions are acquired is related to the frequency with which they are instantiated in languages of the world: both learning ease and frequency can be seen as indices of cognitive 'naturalness'. Presenter 4 then describes a test of this hypothesis, conducted jointly with Presenter 1, in which descriptions of static spatial relations were elicited from learners of English and Dutch, age 2;6 to 6;0. Dutch makes a crosslinguistically rare distinction between kinds of relationships involving surface contact. As predicted, Dutch children were slower than English-speaking children to encode such relations in conventional adult ways, and, when they made errors, their 'choice' of form to overextend was predictable from the crosslinguistic frequency with which certain kinds of surface contact relations are grouped together with prototypical 'on' vs. prototypical 'in' relations.

The workshop will conclude with a brief summary, and questions for further discussion with the audience.

REFERENCES

Bavin, E. (1990). Locative terms and Warlpiri acquisition. *Journal of Child Language*, *17*, 43-67.

Bowerman, M. (1989). Learning a semantic system: What role do cognitive predispositions play? In M.L. Rice & R.L. Schiefelbusch (Eds.), *The teachability of language*. Baltimore: Brooks.

Brown, P. (1994). The INs and ONs of Tzeltal locative expressions: The semantics of static descriptions of location. *Linguistics, 32*, 743-790.

Choi, S. & Bowerman, M. (1991). Learning to express motion events in English and Korean: The influence of language-specific lexicalization patterns. *Cognition, 41*, 83-121.

Clark, H.H. (1973). Space, time, semantics, and the child. In T.E. Moore (Ed.), *Cognitive development and the acguisztion of language*. New York: Academic Press.

Johnston, J.R., & Slobin, D.I. (1979). The development of locative expressions in English, Italian, Serbo-Croatian and Turkish. *Journal of Child Language, 6*, 529-545.

Landau, B. & Jackendoff, R. (1993). "What" and "where" in spatial language and spatial cognition. *Behavioral and Brain Sciences,16*, 217-238.

Talmy, L. (1985). Lexicalization patterns: Semantic structure in lexical form. In T. Shopen (Ed.), *Language typology and syntactic description, Vol.111: Grammatical categories and the lexicon*. Cambridge, UK: Cambridge University Press.

VARIABLE REFERENCE

Convenor: Tom Roeper

William Philip & Peter Coopmans
Ana Perez-Leroux
Tom Roeper & Jill de Villiers
Lamya Abdulkareem

We propose a symposium in which we compare and contrast a variety of domains where reference is variable. Four areas, at least, are involved;

   a) hidden variables and explicit quantifiers (Perez)
   b) pronominal reference (Principle B effects) (Philip and Coopmans)
   c) Specific and Non-specific NP's (deVilliers and Roeper)
   d) pronoun choice in VP-ellipsis (Abdul-Kareem)

We find variability of reference at the lexical level in the use of words like home: everybody went home implies a variable hidden in the word home since each person goes to a different place. This is not true for the sentence John told everyone to go to his home where his can restrict the reading to John's home. Perez shows that the variable nature of "home" is understood very early and apparently before other forms of pronominal variability. This form of variable reference may or may not be related to the variable reference discussed in Philip (1995) to the effect that every boy flew a kite is interpreted as every kite must be flown. (See also Avrutin (1994) and others.)

In addition there is the question of whether children grasp the distinction between specific and non-specific reference in the article system. Even definite articles can vary on this point. Everybody made the claim that John was late can mean that each person made a separate claim or that they all make a collective claim. This resembles the bond nature of articles in French (ils lavent le main (they wash the hand). DeVilliers and Roeper claim that children begin with non-specific reference and acquire specific reference as they learn DP. Therefore early sentences like "eat cookie" lack an article syntactically and semantically as well as phonologically.

There are also well-known issues about how children represent variation in

the use of pronouns, such as Principle B effects. One can ask whether the features of gender, number, and agreement have an impact on the variable interpretation of these pronouns. It is extensively argued that <u>John washed him</u> can mean that John washed himself. But it is not clear that <u>the insect washed it</u> will receive the reading <u>the insect washed itself</u> if the independent reference in <u>him</u> depends upon the gender feature.

Finally it is not clear how variable reference engages the syntax of VP-ellipsis. In a question of the form "who is wearing green" Abdul-Kareem finds that either the answers "I am" or "me" are acceptable. One involves the syntax directly while the other appears to be discourse related since we cannot correctly reconstruct "me am" while in other instances the whole VP must be referred to. This is in turn related to the content of elliptical VP's. Do children allow sloppy identity in a sentence like <u>John hurt his arm and Mary did too?</u>

Each of these forms of variable reference is important. Whether they follow from common principles or are acquired at a common point is an important question for future research. The implications of these perspectives from the point of view of a variety of experimental projects will be the focal point of this symposium with active participation from both the presenters and those who bring expertise about reference and pragmatics in the audience.

THE EFFECT OF PHI AND CASE FEATURE ACQUISITON ON DUTCH CHILDREN'S COMPREHENSION OF PRONOMINAL ANAPHORA

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Utrecht University
The Netherlands

For the child learning English, at a time when sentences such as (1a), (1c) and (1d) are consistently interpreted in an adult-like manner, sentences such as (1b) are, in contrast, frequently understood have a nonadult-like reading in which *her* and *the girl* are coreferential. This child comprehension phenomenon, known as the "apparent delay in Principle B" (ADPB), is standardly analyzed as being essentially non-syntactic in nature (Grimshaw & Rosen 1990; Chien & Wexler 1990; Thornton & Wexler 1991; McDonald & Maxfield 1992; Avrutin & Wexler 1993; Grodzinsky & Reinhart 1993).

(1) a. The girl is pointing at herself   c. Every girl is pointing at herself
     b. The girl is pointing at her   d. Every girl is pointing at her

There are empirical problems, however, for any purely non-syntactic account of the ADPB. First, the ADPB has been observed to vary considerably in strength across child languages, occurring not at all in child Italian (Varela 1989; McKee 1992), while occurring with much greater strength in child Dutch than in child English (Koster 1993). Secondly, it has been shown that while choice of matrix predicate has no significant effect on the ADPB in child English (Chien & Wexler 1995) potentially inherently reflexive predicates have been observed to have a strong effect on the ADPB in child Dutch (Sigurjonsdottir & Coopmans 1994). In addition, we will present recent experimental evidence showing that certain syntactic contexts may significantly enhance the ADPB in Dutch, but not in English. We argue, then, that to be properly understood the ADPB must be analyzed as consisting of two factors which may interact in different ways in the acquisition of different languages: (i) a difficulty, due to general processing limitions, in applying an innately specified pragmatic constraint on conference, i.e. Grodzinsky and Reinhart's (1993) 'Rule I'; and (ii) language-specific peculiarities of acquisition of the adult feature specification of pronouns (phi-and overt structural Case marking). In this view, the absence of the ADPB in languages like Italian follows directly from (i) on the assumption that Romance pronominal clitics are operators (Zubizarreta 1987) and hence incapable of entering into coreference relations in general (such taht Rule I has no opportunity to fail to apply). Turning to the lexical and syntactic interactive effects observed in Dutch, we argue that these follow from (ii), assuming the Revised Binding Theory and Chain Condition of Reinhart and Reuland (1993). Our claim, which is independently supported by the findings of Tyler (1983), is that complete acquisition of the adult feature specification of 3rd person pronouns in Dutch is considerably delayed due to the morphological poverty of the pronoun paradigm. The incomplete feature specification of a pronoun allows it to be interpreted as potentially referentially dependent, i.e. as '[-R]' in the terms of Reinhart and Reuland (1993) and Reuland and Reinhart (1995). This nonadult-like [-R] status of pronouns in the child grammar in turn gives rise to apparent Chain Condition violations in contexts where Principle B would not apply, such as in (2). Of course, these are only APPARENT violation of the Chain Condition: if the child has not acquired the adult feature specification of *hem*, then she will not know that this pronoun must be interpreted as [+R] and her grammar will thus generate the nonadult-like representations in (3), which actually satisfy the Chain Condition. Such apparent Chain Condition violations, then, give rise to stronger ADPB effects. (In (2) and (3), refl = inherently reflexive predicate.)

(2) a. Jan$_1$ waste refl zich$_1$ 'Jan washed himself'
           [-R]

b. *Jan_1 waste ^{refl} hem_1 'Jan washed him'

     [+R]

c. Jan_1 liet [$zich_1$ in de modder zakken] 'Jan let himself sink into the mud'

     [-R]

d.*Jan_1 liet [hem_1 in de modder zakken]   'Jan let him sink into the mud' q

     [+R]

(3) a. Jan_1 waste ^{refl} hem_1 'Jan washed him'

     [-R]

d. Jan_1 liet [hem_1 in de modder zakken]   'Jan let him sink into the mud'

     [-R]

We will present three recently completed experiments collectively involving over 200 Dutch children between the ages of 4 and 8, plus 20 English 6-year-olds and 20 Dutch adults. For two of the experiments we used the paradigm of Chien & Wexler's (1990) 4th experiment; for the third a truth-value judgement story paradigm. We observed, first, that the predictions of Grodzinsky and Reinhart (1993) were robustly borne out for all child subjects for sentences such as in (1) and (4a). Secondly, for the Dutch children---but not for the English chidren---we observed significantly lower levels of adult-like performance with sentences such as in (4b-c) than with sentences such as in (1b). Performance on control conditions showed this to be a purely linguistic effect. Thirdly, the effect in question disappeared with *hem* at the age of 7 but peristed with *haar* until tha age of ---a fact consistent with (ii).

(4) a. Boven de jongen houdt hij een paraplu/Above the boy he is holding an umbrella

b. De moeder ziet haar op het kastje densen/The mom sees her dancing on the dresser

c. De vader ziet hem bellen blazen/The dad sees him blowing bubbles

LEXICAL ACQUISITION AND THE REPRESENTATION OF VARIABLES

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Children's representation of variables is a central issue in the study of

developmental syntax today. We explore a new angle on this question: Do children have knowledge of a variable embedded inside a lexical item? Recent work on the morphology of nominals has shown that elements inside lexical items exhibit binding properties. Jackendoff et al (1992) argues that the word 'home' obeys clause-mate restrictions. Roeper (1993) extends the observation to a larger class of bare nouns, arguing that lexical syntax reflects a precise interaction between absence of functional structure and argument control. He argued that the structural properties of N, NP and DP lead to a variety of syntactic and interpretive differences: DP is a binding domain, while the possessor in NP (the bare noun construction) receive inherent binding or argument control:

(3)   John was in control of the army (John = agent)
(4)   John was in the control of the army (John = theme)
(5)   Mary said that Peter went home (Peter' = possessor)

If this 'Inherent binding' is a property of Universal Grammar, it may be invoked as a default in the absence of the DP projection by the learner. A full DP renders the domain opaque, and the possessor is not controlled in that case. Children would recognize those properties of nominals as soon as they recognize that:
a)   no DP is present
b)   the lexical entry is marked for 'inherent possession' (similar to inalienable possession).
The learner could entertain several hypothesis about the word 'home':
a)   an egocentric view of !home-
b)   the possessor of 'home' is free
c)   the possessor of 'home' depends on pragmatics (speaker orientation)
d)   the possessor of 'home' is anaphoric with a syntactic antecedent

An analyis of the Brown corpus in the CHILDES database showed that the word 'home' is used early by the children, and can refer to the child's own home (speaker orientation) as well as to somebody else's (subject orientation).

(6)   *ADA: Adam home.   *MOT: Adam is home. [$]
        *ADA: Cromer home.   *MOT: Cromer's at your [!!] home. [$]
        *ADA: Ricky home.   *MOT: Ricky's at his home.
    (from ADAM02.CHA)

We conducted an experiment to determine children's interpretations of the implicit possessor in the bare nominal construction. We tested whether children could give bound variable responses in their interpretation of 'home' (in (7)), and whether this interpretation obeyed locality (in (8)). Bare

nominals which have an unambiguous, controlled interpretation, were contrasted with DPs, which were free and therefore ambiguous:

(7) a. Everybody went home (bound variable)
    b. Everybody went to his home (bound variable or deictic)
(8) a. Everbody hoped the lion king would go home
       (local binding=lion king's)
    b. Everybody hoped the lion king would go to his home (local or matrix clause)

47 children, ages 3;7-6;6 participated in the study. Our results indicated that children aged 5 and 6 showed willingness to give bound variable responses to (7a)-66% correct responses- and that they distinguish sharply bare nominals from DPs like (7b), which obtained 80% deictic responses. In the second test, the children gave 80% correct responses to (8a), demonstrating that only the local antecedent was considered as antecedent for the possessor of the bare nominal. Younger children perform very much like older children in the one clause case (7), sharply distinguishing the bare nominals from the pronouns. Their performance in the two clause test indicated a preference for the individual, local interpretation, for both the pronoun and the bare nominals. Comparing their results on the two tasks, one can see a sharp distinction between young children's willingness to give variable interpretation to the implicit possessor, and their unwillingness to assign variable readings to overt pronouns. Our findings yield an interesting new light in previous work on the availability of variables in young children's grammars (Perez-Leroux (1993), Sano (1992), Roeper et al (1985), and many others). The results of this study suggests that the feature variable is present in the grammar in anaphoric environments such as implicit possessors, while they may still remain unavailable for pronouns.

SPECIFICITY AND A SYNTAX / SEMANTICS TRIGGER

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The growth of syntactic structure in acquisition has been a focal point of recent theoretical research. Different assumptions underlie different claims. If there is fixed Universal Base, as Cinque (1995), and Kayne (1994) imply, then it is natural to assume that the child has a full tree with both lexical and functional categories from tha outset (Roeper (1992), (Wexler (1994), or

they are subject only to maturation (Lebeaux (1988), Radford (1990), and Rizzi (1994)), or minimal syntactic information will trigger them. e.g. presence of the triggers Determiner Phrase.

A second assumption, compatible with recent work on Bare Phrase Structure by Chomsky (1994), and Speas (1994), and Roeper and Rohrbacher (1994), suggests that the array of syntactic categories may vary from language to language. In that case, certain syntactic categories must be triggered by the language of the community. If so, the content of the trigger becomes of singular importance.

Early stages of acquisition have been subjected to intensive study to resolve these questions, but it is very difficult to come to firm conclusions which are not simply reflections of the initial assumptions. Although it may be that the study of intuitional linguistics will resolve the question more decisively, we argue that examination of later stages of acquisition can reveal the trigger process.

In particular wa assume that not all languages have a Determiner Phrase (e.g. Japanese) and/or that grammars can generate an NP under a VP without DP. Early evidence ("eat cookie") suggests that an article is absent, although once again, it is difficult to determine if this is simply a phonological constraint. See Lebeaux (1988) and Radford (1990) for extensive discussion. de Villers and Roeper (to appear) have argued that long-distance extraction of wh-questions over NP' is possible, but not over DP's and that children begin with an NP. They explored questions of how children interpret sentences with NP's rather than DP's in them. They argue that children interpret both initially as NP's as shown by their patterns of extraction and binding of pronouns in sentences like (x) how did the kids make the decision to play or how did the kids like the decision to play.

Now the critical question is how the child triggers a DP which serves as a blocker for LD extraction and a binding domain. The common assumption is that a word like every, the, or his is syntactically sufficient to trigger DP. However, we provide evidence from other languages (Norwegian and French) that none of these syntactic clues is sufficient. For instance, a word like everybody contains every but it is not part of an independent DP. Enc (1991) argues that there is a critical semantic distinction which is also relevant: specificity. Note that in the example (x) above there is a non-specific reading for the since each man could make a separate decision or they could all make a (specific) group decision. We argue that specificity is the trigger.

This entails a pivotal assumption about how a trigger works. We argue that the child must use "triggering experience" Chomsky (1965) which entails this assumption: the new category is triggered when a syntactic projection (the) coincides with a semantic projection (specificity). The presence of syntactic information is also necessary, since a non-specific phrase like "eat cookie" could be used (like an adult uses eat cake) where only one specific cookie (or cake) is present. Therefore it is the combination of an article, plus the semantic representation of specificity (which entails a fixed pragmatic judgment of meaning) that serves as the trigger for the child, which equals "experience". Until that point, under Bare Phrase Structure, the child projects a Maximal Projection that is the equivalent of an NP that lacks specific reference, and not a DP, which requires specific reference.

ELIPSIS AS A MIRROR OF CASE AND AGREEMENT PRINCIPLES IN ACQUISITION

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Under Economy theory (Chomsky 1993, 1994) nominative is assigned by AGR-S in English, where the subject moves for checking. Diesing (1992) argues that VP assigns nominative directly which Pierce and Deprez (1992) claim children do also. Vainikka (1995) argues for "me/my" alone as the default version of VP-internal subject.

There is striking difference in VP-ellipsis and defaults between German, English and Arabic. The English default is "me". Subject questions (who has a hat) elicit "me" or "I do", but not *"I", but in German one elicits "ich". *"Ich habe" is sharply ungrammatical, just as a CP answer to "who can you see" with *"John can" is out in English. In Arabic, it is "anaa" or I and in Dutch with "ikke" (not "ik") (Haegeman, to appear).

From 12 adults, 44 children from 1.6 years to 5.0+, we obtained 173/308 "me" answers and 135/308 "I do" or Nom+aux answers, and zero "I" answers to a dozen questions [Who can sing/Who is tall==> "I can", "I am", "me", *"I"] varied to elicit all modals and "do" or "am". From 2.0 to 2.6 years (32/33) 97% responses were "me". "Me" was used (76/88) 86.4% and I Aux (12/88) 13.6% from 2.6 to 3 years. From 3.0 to 3.6 years, (63/75) 84% responses were I Aux and (12/75) 16% were me, much like the adults who gave (22/31) 71% I Aux and (9/31) 29% me responses. We have,

therefore, a sharp shift from default me to AGR-Subject nominative in English at the age range 3 to 3.6 years. We claim: when children project INFL, they (a) use nominative case assignment (b) project the case-assignor auxiliary. Children under 2.6 years (CHILDES) use Inflection, but not IP ellipsis. This fits the claim that the AGR node governing VP is absent. Chomsky (1994) suggests verbs appear in V directly with inflection, before moving; this is consistent with this stage.

In Arabic, 44 subject (32 children from 2 years to 6 + and 12 adults) used I (anaa) above 89% across all ages. In a German experiment 9 four year old answered 12 sentences exclusively with the bare nominative "ich" or "Du" and never with modal *"ich kann". They use exclusively the default from the outset.

How do children trigger differences between languages? The question/ answer discourse itself could be the triggering domain for defining either Nom or Acc as default (or strong (Cardinaletti and Starke, 1993). These results indicate that (a) German, Arabic and English have different defaults, (b) nominative is assigned in English by the AGR-S and not by VP, (d) German involves movement to CP for all questions, but not English (Verripps and Weissenborn 1991; Poeppel and Wexler 1993) and (e) children know that VP-ellipsis is in UG and requires Head-government by IP.

TYPOLOGICAL PERSPECTIVES ON BANTU

Convenor: Susan Suzman

Susan Suzman
Daniel F. Idiata
Francina L. Moloi

INTRODUCTION

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Bantu languages belong to the Niger-Kardofanian family of languages that are spoken in most of Sub-Saharan Africa. Major Bantu languages include Swahili (Tanzania & Kenya), Zulu (South Africa), Shona (Zimbabwe) and Kongo (Zaire). Bantu languages are characterised by complex systems of noun–classes (NCs) and agreement and complicated partially agglutinative verb morphology. They are typically SVO languages and many, but not all, are tone languages.

The extensive language group, consisting of 350-400 languages, is relatively poorly researched in terms of language acquisition. Most work to date has been done in a handful of languages of Southern Africa, Swati, Sesotho, Tswana, Zulu and Chichewa. Research and issues are reviewed in Introduction to this workshop. Then, ongoing work in Sesotho, Zulu and Isangu will be presented.

ACQUISITION OF ISANGU LOCATIVE TERMS

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The present study focuses on the acquisition of locatives in Isangu, a southern Bantu language spoken in Gabon by approximately 50.000

speakers. In this language, locative relations are marked by locative noun classes (NC) 16 'area and top', NC 17 'inside position and direction before a motion verb', NC 18 'side position' and by substantives.

Data on locative acquisition were gathered and checked in a series of production and comprehension tasks involving 50 Masangu children between 2 and 13 years of age. Results discussed in this paper include the following points.

(1) Locative expressions are acquired gradually
(2) In the early stages, the child does not attribute a special meaning to a given locative class.
(3) Young children rely on non linguistic strategies in order to acquire some locative expressions
(4) The words mawusu "front" and manzime "back" are more easily acquired for reference objects which have a back and front (for example a dog, but not a pail) than for those that don't.

THE ACQUISITION OF LOCATIVES IN ZULU

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The 350-400 Bantu languages provide a rich database for exploring cross-linguistic variation in the expression of spatial concepts. In these languages, spatial concepts are expressed either by (1) the locative noun classes or (2) by locative prefixes. Huffman and Herbert (1994) claim that one or the other means of expression is one of the major pointers to Eastern and Western subdivisions of the Bantu languages. Western Bantu languages, including Isangu, express location with the locative NCs 16, 17 and 18 while Eastern Bantu languages, including Zulu, express the same concepts with a general locative prefix and suffix.

In this paper I investigate the construction of spatial concepts by Zulu children in light of cognitively-based and language specific claims about the nature of learning locative concepts. The paper provides evidence that children learn about location as it is filtered through Zulu structure.

THE USE OF COMPLEX SENTENCES BY OLDER SESOTHO-SPEAKING CHILDREN

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To date, few studies of children's use of complex sentences in Bantu languages exist. Demuth (1984, 1992) and Suzman (1991, 1995) have discussed early acquisition of relatives and to some extent other complex structures. This study is a contribution to our knowledge about how older children use complex linguistic structure in a representative Bantu language. It is based on spontaneous data from a group of pre-school children in Maseru, Lesotho. It is a cross-sectional study of samples of children's speech at ages 3, 4 and 5. In this paper, I present an overview of complex sentence types in Sesotho, including coordination, subordination and relativization, and then describe how this group of children use them in social interaction. It is show that children use complex sentences productively, although infrequently compared to more basic clauses. Major patterns of usage are identified and discussed in light of language specific properties of complex sentence formation.

WEDNESDAY   Session: PLENARY
10:00 - 10:50   Room B

LANGUAGE ACQUISITION THROUGH THE LEXICON

Eve Clark
Stanford University
Palo Alto, CA, USA

WEDNESDAY   Session A
11:40 - 13:10   Room A

THE ACQUISITION AND DISPLAY OF DEEP LEXICAL KNOWLEDGE

Organizer: Catherine E. Snow, Harvard University, Cambridge, MA, USA

THE ACQUISITION OF AN ORGANIZED SEMANTIC STRUCTURE.
Herminia Peraita* & Catherine Snow**
*Universidad Nacional de Educacion a la Distancia, Madrid, Spain
**Harvard Graduate School of Education, Cambridge, MA, USA

CHILDREN'S CONCEPTUAL ORGANIZATION AND DEFINITIONS
N.Caramelli*, G.Turrini**, A. Borghi*, E.Lanzetta**, K.Raffaelli*
*University of Bologna, Italy
**Istituto di Linguistica Computazionale dei CNR, Pisa, Italy

CHILDREN'S KNOWLEDGE OF WORD MEANINGS IN THEIR FIRST AND
SECOND LANGUAGE
Marianne Verhallen & Rob Schoonen
University of Amsterdam, Amsterdam, The Netherlands

OVERLAPPING LEXICAL REPRESENTATIONS IN THE TWO LANGUAGES OF
BILINGUAL CHILDREN
Catherine Snow & Patricia Velasco
Harvard Graduate School of Education, Cambridge, MA, USA

ACQUISITION OF SOPHISTICATED VOCABULARY IN FAMILY
INTERACTIONS
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DEFINITIONS PRESENTED TO CHILDREN
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Children differ from one another in how many words they know, but also in the
richness of their knowledge about individual word meanings and about the
organization of semantic information in the lexical system. This workshop will bring

together researchers who have analyzed children's lexical knowledge as displayed through definitions with researchers who have identified in adult-child interaction sources of children's lexical knowledge. Analyzing how children's lexical knowledge is organized provides a context for seeking interactive sources of knowledge in interaction.

The workshop will include six presentations organized in pairs around three subtopics.

Children's development of conceptual and lexical knowledge

Definitions have been used to assess conceptual knowledge by Vygotsky, Piaget, Werner, Bruner, and Anglin. Definitions can be a useful tool in highlighting the most common meaning of a word, and in revealing how children's lexical knowledge becomes increasingly articulated and complex.

Definitions are, however, impossible to elicit from very young children, and thus alternative methods are needed to explore the organization of their conceptual knowledge. One presentation will focus on longitudinal interactive data between one child and his mother, who asked him structured questions focused on precisely the kind of information somewhat older children spontaneously provide in their definitions of word meaning: what is it? what is it for? what is it like? where does one find it? Data on familiar and unfamiliar exemplars of natural and artifactual basic object and superordinate level categories were collected over a period of 12 months, during the child's third year of life. Development of knowledge about specific categories can be traced, as well as exemplar-general knowledge about how to organize lexical information.

A second presentation focuses on analyzing school-aged children's lexical knowledge and its organization. Children's conceptual organisation was subjected to correspondence analysis. The twofold aim was to check for the different definitions given by children to the same word at different ages as well as to assess whether the type of concept referred to by the to-be-defined words related to kind of definition given. The stimuli were 45 of the 800 most frequent words children produced in a previous experiment, selected to represent different kinds of concepts, e.g. artifacts (simple phone, complex table), natural kinds (cat), partonomies (external leaf, internal tongue), collective nouns (team), motion concepts (adventure), events (party), abstract concepts (need), nominal kinds (number), time-referring nominal kinds (Sunday), space concepts (external seashore, internal shop), emotion concepts (fear), social role concepts (parent). Data were collected from 300 children aged 9,11, and 13, from two cities, instructed that that their replies would be used in the compilation of a dictionary for children. The definitions collected are analysed both quantitatively and qualitatively with several correspondence analyses, in which the independent variables are the different kinds of concepts, the child's age, and the sample location.

Children's knowledge of word meanings in their first and second language

Two presentations will directly compare bilingual children's lexical knowledge in two languages, one, the home and the other, the societal language. Both studies focus on aspects of lexical knowledge that are relevant for school success.

In the first study, data were obtained from 40 monolingual Dutch and 40 Turkish-Dutch bilingual children (9- and 11-year-olds). Their task was to explain the meaning of common Dutch nouns in an extended word definition task. This contribution will deal with the comparison of lexical knowledge in L1 and in L2 of the bilingual Turkish children. The amount of knowledge available in the two languages will be compared, as well as qualitative aspects of the lexical knowledge the children display.

The second study presents comparable data from Spanish-English bilingual children in third and fifth grade American bilingual programs (aged 9 and 11). Definitions of the same words in Spanish and English are compared for the amount and quality of information provided. The setting contrasts with that of the Turkish-Dutch children in that the Spanish-English bilinguals are receiving half their schooling in Spanish, and thus have opportunities in classroom discourse and from literacy to acquire depth of knowledge in Spanish.

Interactive sources of support for lexical acquisition

Two presentations focus on the ways in which children acquire knowledge about sophisticated lexical items, their semantic relationships to other words, and their usage, from spontaneously occurring interactions.

The first study examines everyday conversational interactions between low-income mothers and their preschoolers (e.g., book readings, free play, educational play, and meal time), focusing on characteristics of maternal use of sophisticated vocabulary, specifically on the number and nature of sophisticated vocabulary items that five-year-olds are exposed to, and on the quality of mother-child interactions that occur when sophisticated words are introduced into the conversation (direct teaching, indirect or no teaching). These variables relate to subsequent vocabulary, reading and story comprehension achievement in kindergarten and second grade.

The second presentation looks at definitions mothers present to their children. Many years ago, Henderson, working within Bernstein's theoretical framework, argued that the patterning of verbal communication, including maternal definitions, is context dependent and thus must be examined in conditions of use. Also, as studies by Hynmes, Gumperz, Ervin-Tripp, and others had shown, the setting of the interaction and the topic under discussion are major determinants of what is said and how it is said. Since language and cognitive development necessarily incorporate the tacit acquisition by children of the cultural modalities of adult transmitters, through the internalization of

meaning and forms of representation, children's perceptual, attentional, and memory capacities will be specialized through modality patterns usually conveyed by those transmitters. This specialization depends on those patterns, the cognitive processes involved in their internalization, and access to and use of stored information. In this study, types and subtypes of definitions provided by mothers to their children are identified, and their internal semantic relations are associated with cognitive levels required for comprehension and production. These logical, social, deontic, epistemic types of knowledge can be shown actively to regulate the means for the linguistic (re)production.

WEDNESDAY   Session B
11:40 - 13:10   Room B

IN SEARCH OF A PHENOTYPE FOR LANGUAGE IMPAIRMENT

Convenor: Mabel Rice

Mabel Rice, University of Kansas, USA. TENSE AS A PATHOGNOMONIC MARKER.

Martha Crago, Mc Gill University, Montreal, Quebec, Canada. ONE OR MANY PHENOTYPES: SUBTYPES OF FRENCH-QUEBECOIS CHILDREN WITH SLI.

Jill de Villiers, Smith College, Northampton, MA, USA. CLOSED AND OPEN FEATURES OF THE PROGRAM FOR GRAMMAR.

David Poeppel, Massachussetts Institute of Technology, Cambridge, MA, USA. ADVANCES IN FUNCTIONAL BRAIN IMAGING STUDIES.

Kenneth Wexler, Massachusetts Institute of Technology, Cambridge, MA, USA. EXTENDED OPTIONAL INFINITIVES IN SPECIFIC LANGUAGE IMPAIRMENT: GENETIC IMPLICATIONS.

Harald Clashen, University of Essex, Colchester, UK. DISCUSSANT.

In this workshop, the familiar question of possible inherited contributions to language acquisition is reviewed in the context of contemporary advances in understanding the etiology of language impairments. There is now converging evidence that language impairments are familial, and strong reason to suspect a genetic influence. What is at issue is how to characterize the phenotype (i.e., the behavioral manifestation of the effect of the underlying genetic influence). A phenotype could exist at the level of linguistic representation, psychological processing mechanisms, or neurological (cortical) structures and processing. In this workshop distinguished scientists will present discussions of each of these possibilities, with reports from ongoing investigations.

There will be five papers and a discussant. The titles and descriptions are as follows:

Closed and Open Features of the Program for Grammar

The two competing paradigms of language acquisition research might be seen as reaching a compromise in agreeing that syntax is innate but vocabulary is learned. This paper aims to demonstrate that there is a continuum with aspects of grammar that are more less dependent on input. It suggests a partitioning of the components of language acquisition into those that make up the CLOSED part of the genetic program for language (i.e., the components that experience does not influence--though maturation might) versus the OPEN part of the program (i.e., the components that are subject to environmental influence). The case examined in this paper is the system of wh-questions, which can be used to demonstrate the powerful abstract principles of universal grammar, as well as the rich variety of options in the world's languages. The work surveyed demonstrates early mastery of and little variation in the universal principles inherent to wh- questions, such as constraints on long distance movement. There is, however, considerable variation in the acquisition of those principles that are language-particular and input-dependent, such as auxiliary inversion. Questions can then be raised about the nature of the deficits in specific language impairment. Which parts of the grammar are affected- just those that are input dependent? Or is the problem more fundamental, affecting the principles themselves?

Extended Optional Infinitives in Specific Language Impairment: Genetic Implication

A variety of research results over the last several years has provided evidence that there is an Optional Infinitive stage in many languages, including the Germanic languages, French, Irish, and others. A substantial amount of other research shows that children with Specific Language Impairment (SLI) are characterized by an Optional Infinitive stage for a much longer than expected time, an Extended Optional Infinitive period. The stage has the following characteristics: (1) Children use nonfinite as well as finite (tensed) main verbs. (2) Finite and nonfinite verbs appear in different positions, as in the adult grammar. The children thus know the difference between finite and nonfinite verbs. (3) Children essentially know the grammatical characterization of the morphosyntactic distinctions relevant to finiteness and nonfiniteness, including processes of verb movement. (4) Subject-verb agreement is mostly correct in this stage, except that nonfinite forms are often used. Resolution of the OI stage is dependent on the development of a particular feature which requires Tense in most root clauses. In this paper it will be suggested that the problem in children with SLI is that this feature develops late, and the time delay is determined by genetic factors.

Tense as a Pathognomonic Marker

Empirical requirements for a phenotype include the ability to differentiate affected children from non-affected children in a reliable manner. In this paper, evidence will

be presented from English-speaking children in the age range of 4-6 years that children with SLI are differentiated from normally developing children by an extended period of time in which they use nonfinite forms where finite forms are required. This is evident in a set of Tense-marking morphemes (i.e., *-s* in *he walks*; *-ed* in *he walked*; BE forms as in *he is walking* and *he is happy*; and DO forms as in Does he want to walk?). Related analyses reveal that the Tense-marking morphemes show the EOI period whereas non-Tense-marking morphemes, such as *-s* plurals, *-ing* progressive, and the prepositions in and on do not show this delay. These findings will be discussed relative to the empirical and theoretical requirements for a linguistic phenotype.

One or Many Phenotypes: Subtypes of French- Quebecois Children with SLI

Cross-linguistic studies are essential to determining the linguistic principles at risk in SLI, and identifying plausible inherited contributions to language impairment. In this paper evidence from French-speaking children in Quebec will be presented, in which it is argued that language impairments can be evident in different parts of the grammar. These findings will be compared to those reported for English- and German-speaking children with SLI, for plausible representational and processing deficits.

Advances in Functional Brain Imaging Studies

Major advances in (1) molecular and behavioral genetics, (2) linguistic theory and psycholinguistics, and (3) the use of functional neuroimaging techniques to investigate the brain in vivo (e.g., PET, MRI, MEG) put us at the brink of major breakthroughs in our understanding of how cognitive faculties like speech and language are represented and processed in the brain. Because there now exist detailed models of the behavioral phenotype of SLI, supported by independent evidence from linguistic theory, we are in a position to begin investigating the biological basis of normal and pathological acquisition. To study the neural basis of speech and language processing from the perspective of neuroimaging and cognitive neuroscience, we use magnetic source imaging (MSI). MSI combines the high spatial resolution of magnetic resonance imaging (MRI) with the high temporal resolution of magnetoencephalography (MEG). The data from several experimental recordings from primary auditory cortex are discussed, including studies using passive presentation of tones, passive presentation of vowels and CV syllables, and discrimination of CV syllables. The experimental results suggest that the primary auditory cortex, rather than just passively registering the frequency bands out of which speech stimuli are constructed, plays an extensive role in the construction, representation, and processing of speech sounds.

Discussant

The five papers will be discussed by a leading theoretical linguist who studies children's language acquisition in German-speaking children with SLI and normally developing children.

WEDNESDAY   Session C
11:4 0 - 13:10   Room C

EMOTION AND INVOLVEMENT IN CHILD LANGUAGE / DISCOURSE

Convenor: Michael Bamberg

Patricia Clancy, University of California at Santa Barbara, CA, USA. AFFECT TALK
AND SOCIALIZATION: A STUDY OF JAPANESE MOTHER-CHILD
CONVERSATION.

Haruko Minegeshi Cook, University of Hawaii at Manoa, Honolulu, HI, USA.
THE ROLE OF THE JAPANESE MASU AND PLAIN FORMS IN THE
SOCIALIZATION OF CHILDREN.

Judith Hudson & Brandi Sosa, Rutgers University, New Brunswick, NJ, USA.
CONSTRUCTING THE FUTURE AND RECONSTRUCTING THE PAST IN
MOTHER-CHILD CONVERSATIONS.

Shoshona Blum-Kulka, Hebrew University, Jerusalem, Israel. INVOLVEMENT IN
NARRATIVE PRACTICE: AUDIENCE RESPONSE IN CHILD AND ADULT
CONVERSATIONAL STORYTELLING.

Judy Reilly, San Diego State University, San Diego, CA, USA. EMOTIONAL
EXPRESSION AND THE ESTABLISHMENT OF POINT OF VIEW.

Michael Bamberg, Clark University, Worchester, MA, USA. THE IMPACT OF
DISCOURSE PURPOSE ON EMOTION EXPERIENCES: WHY 5-YEAR OLD
CHILDREN CONFLATE SADNESS AND ANGER IN PERSONAL NARRATIVES.

Until recently, people's involvement and feelings about the topic of their talk, or their
feelings about those they are talking to, has not been of much concern for psychologists
or linguists pursuing research in language acquisition. This lack of interest in affect,
emotion, and issues of involvement (or detachment) in language acquisition research
may largely be due to the fact that `man' has been considered to be a rational being
(Shweder, 1984), and language acquisition as the domain of learning (or maturation)
of `his' cognitive, rational capacity. Consequently, affect, emotion, and involvement
were considered to play at best a role as performance features; and as such they were
considered independent and secondary to the process of language and its acquisition.

However, along with the recent decline of the paradigm that viewed language in purely cognitive and rational terms, anthropological and sociolinguistic traditions have begun to leave their mark on the field of language research and language development. The emerging literature on this topic may be divided into two basic streams, one more guided by an interest in the development of semantic and conceptual differentiations[1], the other placing a heavier emphasis on issues of affect expression (non-verbal, lexical, and morphosyntactic) in the achievement of speech (including literate) activities[2]. Nevertheless, both orientations intersect in two interesting ways: (i) They both share an interest in how language and language practices contribute to the socialization of thinking and feeling; that is, both lexical/conceptual research as well as the more pragmatic investigations view language in close association with affect and cognition. (ii) They both rely on discourse data (though often with different assumptions + methods of analysis) as their point of departure, rather than experimental data or linguistic introspections.

On the basis of these considerations, we are proposing a symposium for the VIIth International Congress for the Study of Child Language under the title *"Emotion and Involvement in Child Language / Discourse"*. The symposium title is purposely kept open to leave space for more cognitive/semantic investigations into lexical domains or conceptual differentiations reflected in language, and pragmatic investigations of how children gain their local cultural identities in the interface of language and affect/emotion. Thus, research papers that use conversational data, interview data, or narrative, monologue-like productions are united in this symposium, representing a spectrum of diverse theoretical and methodological approaches to the interface of language, cognition, and affect.

While the following six papers all provide findings that deal with this interface between language, cognition, and affect, they vary in terms of the language(s) investigated, the genre used by child (and caregivers), and the age of the children. As such they investigate issues of emotion and involvement in child language from a number of angles:

(1) *"Affect Talk and Socialization: A Study of Japanese Mother-Child Conversation"*

This paper investigates the use of affect terms (in Japanese) in caregiver-child interactions [children's age range: 13-28 months] as indexing early and culturally specific processes of language socialization.

(2) *"The Role of the Japanese masu and Plain Forms in the Socialization of Children"*

In a way, this paper is an elaboration of the previous paper, performing a microanalysis on two (in Japanese obligatory) particles in sentence-final position, indexing either affective involvement or detachment. The use of these forms in two culturally

significant contexts (home vs. school) is compared in children between 3 and 7 years with regard to their socializing function. "

(3) *"Constructing the Future and Reconstructing the Past in Mother-Child Conversations"*

Here, mother–child conversations are analyzed with regard to how emotion terms are used in the reconstructions of shared past episodes versus planning future events. Conversations when children were 29 months old are compared with a second sample of mothers and children, where the children were 48 months old. Differences in maternal style seem to play an important role in how children begin to use emotion terms and evaluative comments in their own talk about past and future.

(4) *"Involvement in Narrative Practice: Audience Response in Child and Adult Conversational Storytelling"*

In line with the previous three presentations, this paper makes use of conversational data, focusing on audience responses (challenges and supports) to conversational narratives during family dinners; comparing Jewish American families (English-speaking) with Israeli families (Hebrew-speaking) with at least one pair of siblings (one of them a preschooler, the other a school age child). Audience involvement (and detachment) here is examined as a socialization practice of culture-specific activities within the language/emotion interface.

(5) *"Emotional Expression and the Establishment of Point of View"*

In contrast to the previous presentations, this paper introduces the expression of affect by way of supra-segmentational means and facial expression as important means to signal the 'point of view' from which the actions of a third-person character and the results of such actions are 'viewed' (presented and evaluated). Comparing the performance of adult narrators with children's (both in English and American Sign Language), the particulars of affect expression and their functions in narrating stories are highlighted and tuned into a developmental picture.

(6) *"The Impact of Discourse Purpose on Emotion Experiences: Why 5-Year Old Children Conflate Sadness and Anger in Personal Narratives"*

This paper investigates the lexical differentiation (in American English) of *angry* and *sad*, comparing children's personal narratives with their explanations of the two terms. It argues that differences in levels of affective involvement within these two genres bear on how the two terms are learnt in their two distinct cultural applications, impacting in turn on the socialization 'how to feel'.

The six papers all represent most recent, up-to-date empirical investigations of the emotion/language/cognition intersection. Presented collectively in the form of this symposium, we hope, in addition to the intellectually stimulating presentations of each individual paper, to initiate a discussion with the audience that addresses the theoretical issue of how language acquisition research in the future can more productively deploy this interface.

1 In terms of some general guideposts, this stream is represented by philosophers (as for instance in Rom Harre's 'emotionology' - Harre & Gillet 1994, Davies &. Harre 1990), anthropologists (e.g. Lutz 1988), semanticists (Wierzbicka 1993), and cognitive psychologists (e.g. Stein 1991, 1992), as well as by two of the contributors to the proposed symposium.

2 This stream is represented in the works by Chafe (1984), Duranti (1994), Ochs (1988), Tannen (1984), and several of the contributors to the proposed symposium.

References:

Chafe, W. (1991) Grammatical subjects in speaking and writing. *Text, 11*, 45-72.

Davies, B. & Harre, R. (1990) Positioning: The discursive production of selves. *Journal for the Theory of Social Behaviour, 20*, 43-63.

Harre, R. & Gillet, G. (1994) *The discursive mind.* Thousand Oaks, CA: Sage.

Lutz, C. (1988) *Unnatural emotions: Everyday sentiments on a Micronesian atoll and their challenges to Western theory.* Chicago: Chicago University Press.

Ochs, E. (1988) *Culture and language development.* Cambridge: Cambridge University Press.

Shweder, R. (1984) Anthropology's romantic rebellion against the enlightenment; or there's more to thinking than reason and evidence. In R. Shweder & R. Levine (Eds.), *Culture theory: Essays on mind, self, and emotion.* Cambridge: Cambridge University Press.

Stein, N.L. & Levine L.J. (1991) Making sense out of emotion: The representation and use of goal-structured knowledge. In W. Kessen, A. Ortony, & F. Craik (Eds.), *Memories, thoughts, and emotions.* Hillsdale, NJ: Erlbaum Associates.

Stein, N.L. & Trabasso, T. (1992) The organisation of emotional experience: creating links among emotion, thinking, language, and intentional action. *Cognition and Emotion, 6*, 225- 244.

Tannen, D. (1982) The oral/literate continuum in discourse. In D. Tannen (Ed.), *Spoken and written language: Exploring orality and litercy.* Norwood, NJ: Ablex.

AFFECT TALK AND SOCIALIZATION: A STUDY OF JAPANESE MOTHER-CHILD CONVERSATION.

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Although there is a long history of research on the universal biological bases of emotional states (Darwin, 1987; Ekman & Friesen, 1971; Izard, 1971), there is also considerable evidence that the emotional experience, e.g. what is felt and in what contexts, is subject to socialization processes and cross-cultural differences (Geertz, 1959; Lewis & Sarni, 1985; Irvine, 1982; Maltesta, 1982; Levy, 1984). Language referring and reacting to emotions constitutes a particularly powerful socialization tool, shaping the way children understand their feelings and the way the expression of their feelings is socially organized (Miller & Sperry, 1987; Ochs, 1988; Schieffelin, 1990).

In this study the socialization of affect is analyzed in the conversations of three Japanese mother-child pairs. The three children (aged 1;11-2;4 years) were of middle-class Tokyo families, and were tape-recorded at home in interaction with their mothers. The data for the study include all lexical expressions of affect as well as their conversational contexts. The analysis focuses on the three aspects of these verbal interactions: (1) the lexical items used by the mothers and children to express and refer to emotions, (2) the social contexts in which talk about feelings occur, and (3) the organization of the conversational sequences in which affect talk was embedded.

The affect lexicon found in the data includes a range of positive and negative adjectives and nominal adjectives, e.g. kowai 'scary' osoroshii 'awesome, frightening', okoru 'be angry', hazukaslii 'shameful/embarrassign', kirai 'hateful', okashii 'strange/funny', omoshiroi 'fun/interesting', kawaisoo 'pitiful/feel sorry for'. The experiencer is usually omitted from expressions of affect, e.g., raion-ga kowai 'Lions-SUBJ are scary (=I'm afraid of lions)', blurring the distinctions between mother, child, and people in general. Thus the grammar of affect both reflects and reinforces the importance of empathy and shared feeling in Japanese culture.

Lexical expressions of affect in the data occur in a variety of social contexts, both "immediate" (i.e., based on the ongoing interaction such as play with toys, meals, chores and child care) and "displaced" (e.g., pretend play, talk about the past, reading storybooks). Maternal expressions of emotion in "immediate" contexts usually target inappropriate child behaviors, e.g., eating without offering food to others, saying "no" to a guest. Affect talk in "displaced" contexts, in which the child is not emotionally aroused by ongoing events, allow the mother to (re-)interpret past experiences (e.g., visits to the doctor, who is not kowai 'scary' but yasashii 'kind'), prepare for future experiences, and teach appropriate feelings and behavior, e.g., fear of fire.

The conversational sequences in which affect talk is embedded typically consists of a series of exchanges that "negotiate" a particular lexical expression of affect until the child agrees with the mothers characterization, or at least abandons further resistance. These conversational sequences are highly patterned and repetitive. For example, when the child expresses an emotion, the mother frequently elicits a repetition through query, and then either accepts (e.g., by repeating) or rejects (e.g., by substituting a contrasting emotion term) the child's utterance. When mother and child are in agreement, several turns may be spent querying and confirming, or just repeating, the affect term. When mother and child disagree, the child may ask questions until s/he is reassured and accepts the mother's lexical characterization (e.g., by affirming or repeating it) or may eventually just fall silent, allowing the mother to have the last word. Thus the socialization of affect is accomplished in conversation through a set of frequently repeated patterns that show the child that the expressions of affect are a worthy topic of talk, that they are negotiable, and that there are approved and disapproved feelings and ways of expressing emotion.

In conclusion, it is clear that lexical expression of affect play a powerful socializing role in Japanese mother-child interaction. Through affect talk, mothers shape their children's understanding of what emotions are appropriate in what contexts (e.g., what to fear), as well as cultural norms for appropriate display of affect (toward whom, in what situations). The conversational organization of affect talk provides a structured, predictable site for the transmission of this information, and for the negotiation and the socialization of the Japanese child's emotional experiences.

References

Darwin, C.R. The expression of emotions in man and animals. London: John Murray.

Eckman, P. & Friesen, W.V. 1975. Unmasking the face, Englewood Cliffs, NJ: Prentice-Hall.

Geertz, H. 1959. The vocabulary of emotion: a study of Japanese socialization processes. Psychiatry, 22: 225-237.

Irvine, J.T. 1982. Language and affect: some cross-cultural issues. In H. Burns (ed.), Contemporary perceptions of language: Inter-disciplinary dimensions, Georgetown Round Table on Language and Linguistics. Washington, D.C.: Georgetown University Press.

Izard, C.E. The face of emotion. New York: Appleton.

Levy, R. 1984. Emotion, knowing, and culture. In R. Sheweder & R. Levine (eds.), Culture theory: Essays on mind, self, and emotion. New York: Cambridge University Press.

Lewis, M. & Saarni, C. 1985. Culture and emotions. In M. Lewis & C. Saarni (eds.), The socialization of emotions. New York: Plenum Press.

Malatesta, C.Z. 1982. The expression and regulation of emotion: a lifespan perspective. In T. Field and A. Fogel (eds.), Emotion and early interaction. Hillsdale, NJ: Erlbaum.

Miller, P. & Sperry, L.L. 1987. The socialization of anger and aggression. Merrill-Palmer Quarterly, 33:1-31.

Ochs, E. 1988. Culture and language development: Language acquisition and language socialization in a Samoan village. Cambridge. Cambridge University Press.

Schieffelin, B.B. 1990. The give and take of everyday life: Language socialization of Kaluli children. Cambridge. Cambridge University Press.

Schieffelin, B. & Ochs, E. 1986. Language socialization. In B. Siegel (ed.), Annual Review of Anthropology. Palo Alto, CA: Annual Reviews, pp. 163-191.

THE ROLE OF THE JAPANESE MASU AND PLAIN FORMS IN THE SOCIALIZATION OF CHILDREN.

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This paper demonstrates that so-called "speech-level markers" in Japanese are indexes of affective stance and that they play an important role in socializing children into Japanese society.

Studies in language socialization (Ochs 1986, 1988, in press; Ochs and Schieffelin 1984, 1989; Schieffelin 1985; Schieffelin and Ochs 1986a, 1986b; Clancy 1986) have demonstrated that affect plays a pivotal role in the process of children's acquisition of linguistic structures as well as sociocultural knowledge. These studies have illustrated a wide variety of linguistic structures which encode affect, intricate ways in which affect constitutes social categories and processes in which children acquire such knowledge in social interaction. Ochs (1988, in press) suggests that universally, affective stance often indexes as well as helps constitute social identities, speech acts, genres, etc.

In Japanese, studies in linguistic socialization through the use of an affective key are still scarce partly because most linguistic forms are not analyzed as indicators of affect. This paper examines the use of the so-called "speech-level markers" in Japanese (the *masu* and plain forms) in home and school environments. Although traditionally they are not considered affect indicators, this study reanalyzes them as indexes of affective stances. The *masu* form indexes the disciplined mode of self (affective distance) and the plain form, the innate mode of self (affective proximity). These two forms are pervasive in Japanese, for every sentence-final position must be marked by one of them. Children are exposed to these forms early in their lives. For this reason we may assume that the way in which these forms are used has a great impact on children's socialization.

The data comes from 15 hours of family conversations involving children aged three to seven and 13 hours of classroom interactions in third- and fourth-grade classes.

The microanalysis of the data shows: i) Children are exposed to movement between the two affective modes at home and school, and they understand the affective meanings associated with the forms; ii) these modes help organize speech activities more systematically in the classroom than at home; iii) the two modes do not create the hierarchical relations that they often do in an adult-adult interaction.

Based upon the findings, the paper suggests that through the affective stances indexed by the *masu* and plain forms, Japanese children come to understand culturally significant social contexts as *uchi / soto* 'in-group / out-group' and *ura / omote* 'back / front' and how to behave appropriately in each. It also speculates that a wider range of social meanings associated with these affective stances will develop later in life when children are more self-conscious in reaching puberty and their social world becomes more complex.

References:

Clancy, P. (1986) The acquisition of communicative style in Japanese. In Schieffelin, B. and Ochs, E. (eds.) *Language socialization across cultures.* Cambridge: Cambridge University Press, pp. 213-50.

Ochs, E. (1986) From feelings to grammar: a Samoan case study. In Schieffelin, B. and Ochs, E. (eds.) *Language socialization across cultures.* Cambridge: Cambridge University Press, pp. 251-72.

_____. (1988) Culture and language development: *Language acquisition and language socialization in a Samoan village.* Cambridge: Cambridge University Press.

_____. (in press) Linguistic resources for socializing humanity. In Gumperz, J. and Levinson, S. (eds.) *Rethinking linguistic relativity.* Cambridge: Cambridge University Press.

Ochs, E. and Schieffelin, B. (1984) Language acquisition and socialization: three developmental stories ant their implications. In Shweder, R.A. , LeVine, R.A. (eds.) *Culture theory: Essays on mind, self, and emotion.* Cambridge: Cambridge University Press.

_____. (1989) Language has a heart. *Text* 9:7-25.

Schieffelin, B. (1985) The acquisition of Kaluli. In Slobin, D. (ed.) The crosslinguistic study of language acquisition. Hillsdale: Erlbaum.

Schieffelin, B. and Ochs, E. (1986a) Language socialization. *Annual Review of Anthropology* 15:163-91.

Schieffelin, B. and Ochs, E. (1986b) Language socialization across cultures. Cambridge: Cambridge University Press.

CONSTRUCTING THE FUTURE AND RECONSTRUCTING THE PAST IN MOTHER-CHILD CONVERSATIONS

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New Brunswick, NJ, USA.

Researchers have examined how young children learn to remember in mother-child conversations (e.g., Reese, Haden, & Fivush, 1993; Hudson, 1990), but there has been relatively little research on mother-child talk about the future. Parent-child conversations may provide a naturalistic context for children to learn how to remember the past as well as how to plan for the future. This study examined mother-child talk about both past and future events. Subjects included 28 mothers of 2.5-year-olds (14 girls) and 28 mothers of 48-month-olds (14 girls). Subjects were white, middle-income children and their mothers. Mothers engaged their children in conversations about 4 future and 4 past events. Future and past conversations took place on separate occasions one week apart. In each conversation, 2 novel and 2 routine events were discussed.

Mothers' contributions were coded into 4 major categories: reference to past episodes ("What did you do the last time you went to the playground?"); references to general event information ("What happens at preschool?"); references to future actions using the simple future tense ("What are you going to do at the beach?"); and references to planing, include comments suggesting possible actions ("Maybe you'll see clowns?"), eliciting approval for possible actions ("Would you like to have a birthday party at McDonald's?"), and soliciting predictions ("Do you think Amanda will be there?") or preferences ("What color should the cake be?").

Analyses of mothers' talk about the future indicate that mothers tended to focus on potential pleasant experiences and encouraged their children to indicate their evaluations and preferences ("That could be fun," "Would you like that?"). Mothers also used different techniques to engage their children in talking about novel and routine events. For routine events where general event knowledge could be assumed, mothers frequently elicited script reports from their children in order to anticipate a future episode. In discussing novel events, mothers were more likely to suggest possible actions and elicit predictions and preferences. These event differences indicate that mothers were sensitive to their children's prior knowledge about event and engaged their children in thinking about the future in different ways depending on whether the event under discussion was familiar or unknown to the child.

Additional analyses will be performed to examine maternal style differences in how mothers talk about the past and future and to examine the use of mothers' and

children's emotion terms and evaluative comments as they construct an anticipated future and reconstruct shared past experiences.

INVOLVEMENT IN NARRATIVE PRACTICE: AUDIENCE RESPONSE IN CHILD AND ADULT CONVERSATIONAL STORY-TELLING.

Shoshona Blum-Kulka
Hebrew University
Jerusalem, Israel

Audience involvement in story-telling is achievable through a rich repertoire of responsive verbal strategies that may support or challenge the performance rights of the teller (the realm of telling), the story-world presented (the realm of the tale) or the author (and/or) protagonist's point of view. The study examines how these tasks of involvement are realized in narrative events concerning the past during dinner conversations in Jewish-American and Israeli families with two to three preschool (3 to 6) and school age (7 to 14) children. Narrative events were analyzed for the narrative realm responded to during story performance and for the affective function of audience response as support or challenge. The findings show variation by culture, age and gender for all dimensions examined. Cultural variation in responsive behavior is consistent for both adults and children, showing children to model their responsive patterns on those of the adults in their culture. Age affects the level of responsiveness received, with younger children receiving the highest rates and adults the lowest. Gender affects the ratio of supportiveness: in all parental input to children's stories support exceeds challenge, but this trend is more salient for mothers than for fathers. I argue that the display of audience involvement in narrative practice, as studied here, has important implications for understanding how children learn the culturally unique interrelationships of language and emotion.

EMOTIONAL EXPRESSION AND THE ESTABLISHMENT OF POINT OF VIEW

Judy Reilly
San Diego State University
San Diego, CA, USA

Emotion appears in narratives in many guises. From our previous work, we know that young children recruit their affective skills to supplement their rather impoverished narratives (Reilly, 1992; Bamberg and Reilly, 1995), and one common feature of preschool narratives is the frequent occurrence of character voice (using a particular vocal quality to signal that you are portraying that character). Shifting point of view is one aspect of narrative which is both conceptually and linguistically complex, and is

often expressed affectively. Whereas adults rely on a variety of subtle linguistic devices to signal point of view, affective prosody, especially in telling stories to preschoolers, emerges as a common device for signaling point of view in English. Similarly, in American Sign Language (ASL), in addition to manual linguistic means, e.g., pointing at and naming characters, point of view can also be signaled by body shifts, eye gaze behaviors, and the use of affective facial expressions. Thus, from their frequent use of character voice, it appears that preschoolers may have already mastered this complex aspect of narratives.

To assess the use of both affective prosody and facial expression to signal point of view, we have collected data from stories in which there are multiple characters within a single episode, (i.e. the Three Bears and Frog where are you? Mayer, 1969). In these instances, the problem of the storyteller is not only to signal changes from narrator to character point of view, but also to delineate clearly which of the potential characters is currently playing center stage. For our discussion of emotional expression and point of view, we will draw on four data sources: 6 hearing and 6 Deaf adults telling Frog where are you?, and 20 Deaf children (ages 3-7) signing the Three Bears in ASL and 20 (ages 3-7) hearing children using English to tell the Three Bears. The narratives from the adults show that they signal point of view employing both linguistic and affective means in an integrated fashion. For example, Deaf mothers both name a character, e.g., BOY, FROG, shift body position and assume a specific affective facial expression to enact or depict the events from the point of view of the character within the story. In the children's narratives (both Deaf and hearing), we have found that the earliest strategies to signal changes in point of view, i.e., that the narrator has assumed the character, include affective facial expression (ASL) and affective prosody (ASL and English). However, unlike the adults, the preschoolers generally use one global, rather than several contrastive character expressions. Together these data suggest that rather than having mastered point of view, as it may have originally appeared, the preschoolers' use affective expression is undifferentiated and not yet integrated into the narrative structure.

THE IMPACT OF DISCOURSE PURPOSE ON EMOTION EXPERIENCES: WHY 5-YEAR OLD CHILDREN CONFLATE SADNESS AND IN PERSONAL NARRATIVES

Michael Bamberg
Clark University,
Worchester, MA, USA.

While some of the world's languages are argued not to differentiate in their lexica between 'anger' and 'sadness', American children have been noted, when given story

The study reported in this presentation compares to speech-genres, that of personal narrative and explanations. 80 children of four different grades (preschoolers, kindergartners, 1st-graders, and 3rd-graders, spanning the age 5 to 10 years) were asked to share two particular experiences, one where they were particularly angry, and one where they were particularly sad. For the explanatory genre, they were asked to explain what the two terms meant to someone who would not know.

The analysis of the children's personal narratives revealed that preschoolers and most kindergartners constructed the same type of responses for anger and sadness experiences: Both were constructed in terms of a highly agentive other, who willfully brings about a change of state that is perceptible in the target of the action, i.e. the narrator. With age, children differentiate their responses, maintaining this response type for anger experiences, while constructing a different response that is low in agency with no target orientation, resembling "natural happenings" for sadness experiences.

In contrast to this developmental course in personal narratives from an undifferentiated state to a state where anger is clearly differentiated from sadness, the responses to the two different emotions in the explanatory discourse situation are differentiated from early on, raising the question as to why children 'underdifferentiate' between semantic concepts that are clearly differentiated in other genres.

The discussion will focus on the role of *Involvement* as a "Discourse Purpose," that is, the fusion of 'anger' and 'sadness' in personal narratives at an early age is argued to result from the discourse purpose to elicit sympathy. However, when the affective involvement is reduced, as in explanatory discourse (or in story completion tasks, where children are asked to take the third-person perspective), the culturally appropriate semantic distinctions can surface earlier and more clearly. In some final remarks, I speculate on the relevance of findings like these for actually constitutes "emotion experiences", as well as the role of affective involvement (and 'detachment') for the acquisition of other lexical domains.

THURSDAY   Session A
14:00 - 15:30   Room A

TYPOLOGICAL FEATURES IN THE ACQUISITION OF SEMITIC LANGUAGES

Convener: Dorit Ravid, Tel Aviv University

• Arabic

Abderrahman El Aissati, Tilburg University, Language interference and
    simplification strategies in the acquisition of Moroccan Arabic as
    a minority language in the Netherlands.

Dorit Ravid and Rola Farah, Tel Aviv University, Noun plurals in early
    Palestinian Arabic

Judith Rosenhouse, Technion - I.I.T., The acquisition of Colloquial
    Arabic phonology: some natural data and theory

• Hebrew

Sharon Armon-Lotem, Tel Aviv University, The morphology-syntax
    interface in the acquisition of Hebrew verbal inflections

Liliana Tolchinsky, ICE University of Barcelona, How particular scripts
    affect word segmentation: A study in Hebrew and Spanish

Iris Levin, Sharon Rapaport and Of ra Korat, Tel Aviv University, The
    development of early writing in Hebrew: Effects of language
    structure and orthography

Discussant: Dorit Ravid, Tel Aviv University

• Arabic

LANGUAGE INTERFERENCE AND SIMPLIFICATION STRATEGIES IN THE ACQUISITION OF MOROCCAN ARABIC AS A MINORITY LANGUAGE IN THE NETHERLANDS

Abderrahman El Aissati
Tilburg University
Tilburg, The Netherlands

In this contribution I propose to look at sentence processing and word
(plural) formation of MA / Dutch bilingual adolescents with MA as a

native language. To study sentence processing strategies, the following
linguistic cues have been manipulated in a cue-validity experiment:
Animacy, subject-verb number agreement, stress, and word order. The
results of this experiment show that the cue-configuration in the
grammar of MA speakers in the Netherlands is different from that of MA
speakers in Morocco (the control group). The results of a plural formation
test will be discussed with the objective of showing the kind of strategies
speakers of MA as a minority language resort to as a compensation for
their incomplete acquisition of MA. The discussion will highlight the role
of Dutch as a dominant language as well as the role of compensatory
strategies in shaping the MA of Dutch / MA bilinguals.

NOUN PLURALS IN EARLY PALESTINIAN ARABIC

Dorit Ravid and Rola Farah
Tel Aviv University
Tel Aviv, Israel

The acquisition of grammatical morphemes, specifically of plural forms,
has been the focus of a variety of studies. Given the irregularities which
abound in plural marking in many languages, these studies seek to
explain the interface of lexicon and grammar in early child language as
well as the direction of language change (Berman, 1981; Dresher, 1981;
Ingram, 1985). Palestinian Arabic, which has scarcely been investigated
in empirical studies, has two types of plurals: (I) regular - masculine and
feminine, with a linear structure; and (ii) irregular or broken plurals with
a non-linear structure (McCarthy & Prince, 1990). The current study
aims to analyze the acquisition of nouns marked for regular or broken
plural form in the language of 3-6 year old native speakers of
Palestinian Arabic in Israel. 48 children were asked to give the plural
form of 42 nouns. Results show a marked preference for the feminine
linear structure. Implications for language development and for Prosodic
Morphology theory will be discussed.

THE ACQUISITION OF COLLOQUIAL ARABIC PHONOLOGY: SOME NATURAL DATA AND THEORY

Judith Rosenhouse
Technion - I.I.T.
Haifa, Israel

The phonological system of colloquial Arabic dialects spoken in Israel includes 5 short and 5 long vowels and 28 consonants including some whose exact identities are dialect-dependent. Based on recordings of children aged 2;6 - 10 years from Israel, we discuss in this paper some major phases in the acquisition of the phonological system in Arabic as a mother tongue. We review the stages of acquisition of phonemes, syllables, and word stress, up to the whole-word level. General theories of children' s acquisition of a phonological system are generally corroborated here. However, some deviations from familiar patterns in the acquisition of phonology are due to language-specific features of Arabic phonology. Specifically, we refer to the acquisition of laryngeals/pharyngeals, interdentals and emphatics, gemination, prosthetics and word stress. We also discuss the Arabic dialectal variability and strong diglossia situation which make it difficult to form a uniform and clear-cut picture of phonological acquisition processes.

• Hebrew

THE MORPHOLOGY-SYNTAX INTERFACE IN THE ACQUISITION OF HEBREW VERBAL INFLECTIONS

Sharon Armon-Lotem
Tel Aviv University
Tel Aviv, Israel

This work concentrates on the order in which verbal inflections are acquired in Hebrew, showing that it mirrors a bottom-up acquisition of the syntactic tree. Searches conducted over corpora of three Hebrew-speaking children aged 1;6-3;0, searching for all verbal occurrences suggest that early verbs at the single-word period are mostly in the infinitival and imperative forms (80% of the verbs). There are however, some instances of past forms and present participial forms, which are strictly limited during this period to aspectual usage. Each verb has only one form, used in all contexts, e.g., feminine forms are used for both feminine and masculine subjects, and vice versa. Knowledge of the morphological system is acquired as follows: (i) Subject-verb agreement

in gender and number of the unmarked third person forms; (ii) an explosion of past and present forms, about a month later, which are not aspectually limited. Each verb has several forms. (iii) Subject-verb agreement in first and second person. The increase of verbal morphology is accompanied by a decrease in the usage of root infinitives, till they are almost nullified when person morphology is acquired. This data suggests that children' s acquisition of verbal morphology mirrors the tree in (1), where person is a feature of AgrS, [AgrS [Tns [AgrPrt [Asp [AgrO [VP]]]]]]. That is, children use minimalist bottom-up partial trees. An additional fact here is that Hebrew-speaking children manifest knowledge of the CP system, both for subordination as well as for questions, only after they start using the full inflectional system.

HOW PARTICULAR SCRIPTS AFFECT WORD SEGMENTATION: A STUDY IN HEBREW AND SPANISH

Liliana Tolchinsky
ICE University of Barcelona
Barcelona, Spain

The aim of this presentation is to show the extent to which Hebrew-speaking children's explicit segmentation of words is affected by the particular features of Hebrew script. To highlight this effect, the development of word segmentation and word writing in Hebrew will be compared with their counterparts in Spanish. The two languages use different scripts but share important similarities in the frequency distribution of consonants and vowels and in their syllabic structure. 115 Hebrew-speaking and Spanish-speaking children from preschool to second grade were asked to explicitly segment and to write a series of nouns that are similar in pronunciation and meaning in both languages (e.g., *salami*). Word segmentation evolved with grade level towards subsyllabic segmentation in both language groups. However, pronunciation of consonants in isolation appeared earlier and significantly more frequently in Hebrew than in Spanish. Word writing evolved toward alphabetic mapping in both language groups; but at each grade level children's production reflected the specific features of each script. The same words were written by Hebrew-speaking children using mainly consonants and by Spanish-speaking children using mainly vowels. Results are discussed in terms of the way scripts shape native intuition of linguistic units.

THE DEVELOPMENT OF EARLY WRITING IN HEBREW: EFFECTS OF LANGUAGE STRUCTURE AND ORTHOGRAPHY

Iris Levin   Sharon Rapaport   Ofra Korat
Tel Aviv University
Tel Aviv, Israel

The Hebrew writing system is semi-consonantal: it represents consonants in a relatively complete and systematic fashion. Vowels are marked by four letters only - *matres lectionis* - less efficiently. This feature is interpreted as related to Hebrew structure, i.e., most content words being derived from consonantal roots. The effects of these factors on children's early writing was examined in two studies. The first compared preschoolers of 5-6 to 6-7 year olds, and the second studied longitudinally the transition from preschool to school by comparing 6-7 to 7-8 year olds. Children were asked to write pairs of words, e.g., singular-plural, masculine-feminine nouns. In line with expectations, early writing with letters representing phonemes was limited to consonants. The use of vowels in writing was acquired later, lagged behind that of consonants, and was less systematic. There were children who represented in writing all consonants required without any vowel, as though refraining from using a confusing system. The use of the vowel-letter H which functions as a morpheme marking gender and appears only at word final position, marked gender in the most advanced preschoolers and gradeschoolers only, and led to the emergence of a variety of alternative rules, not ordered by a developmental scale. Discussion will compare early writing in Hebrew to emergent writing in other languages.

DISCUSSANT

Dorit Ravid
Tel Aviv University
Tel Aviv, Israel

THURSDAY   Session B
14:00 - 15:30   Room B

THE ROLE OF LANGUAGE IN EVENT UNDERSTANDING

Convenor: Jill de Villiers

Roberta Minnick Golnikoff
Kathy Hirsh-Pasek
Helen Tager-Flusberg
Jill de Villiers & Stanka Fitneva
Peter de Villiers
Elaine Gale
Jennie Pyers

In this symposium the participants explore the relationships possible between conceptual understanding of events and their description using language. There are theoretically three possible ways this relationship might be played out in different domains. The most widely accepted is that language maps on to an existing conceptual understanding of events, while contributing no new cognitive understanding. In other words, first the child understand the world, then she learns to talk about it. However, the varieties of linguistic mapping have often called such a scheme into question: how could prelinguistic understanding be universal, if languages then express such a variety of concepts?

A second position is one of weak determinism, that language "draws attention" to conceptual distinctions that might or might not be salient in the absence of language. In that way, language fosters conceptual distinctions which might then vary across languages, although speakers of other tongues can surely find ways to express those distinctions in circumlocutions when the need arises. An example in the current language acquisition literature is the work on spatial prepositions in Korean versus English, by Bowerman and Choi.

A third possibility, of strong determinism, is that language makes possible a conceptual distinction that would otherwise not be actualized. For example, language might be the common response made to a set of particulars that have no other functional connection in behavior. Hearing those particulars brought together under a symbol might draw out an implicit unity that would otherwise remain latent. In this way, language would make possible some categorical distinction that would not emerge in other behaviors.

Premack (1983) has made this point about the changes in understanding made possible by a symbol system. Under what conditions might it be necessary to unite particulars under a symbol? When that symbol participates in a larger web of symbols in which the particulars lose relevance, and higher orders of understanding emerge from discarding them and attending to the symbol relationships. Philosophers argue over whether there is a "language of thought" in which this can be done independent of natural language, or whether symbols are even necessary to capture "cognitive" processes (e.g. connectionism). Here we explore the modest possibility that natural language plays a role in the emergence of new forms of conceptualizing events.

The papers in this symposium are all attempts to understand potential relationships among language and cognition. Golinkoff and Hirsch-Pasek explore the way that the acoustic signal might draw attention to ways of carving up events for young children. In older preschoolers, Tager-Flusberg presents data on the coincident emergence of theory of mind understanding and subtle linguistic knowledge about mental terms. J. de Villiers and Fitneva explore a strong position that understanding propositional attitudes such as false beliefs depends on a sophisticated mastery of sentence embeddings. P. de Villiers, Gale and Pyers present surprising data from deaf children suggesting the causal role of language in understanding theory of mind in other persons. Together these papers suggest new ways of conceptualizing the role of language in understanding events, especially those involving other persons.

LANGUAGE AND COGNITION: THE ROLE OF 'ACOUSTIC PACKAGING' IN CARVING UP THE WORLD'S EVENTS

Roberta Minnick Golinkoff
University of Delaware
Delaware, USA

Kathy Hirsh-Pasek
Temple University
Philadelphia, PA, USA

Language comprehension, and a more primitive use of language we refer to as "acoustic packaging," may partially assist the child in constructing mental models of the world's events. In this view, language comprehension subserves the larger goal of cognitive development. How might language comprehension assist the young child in internalizing and interpreting events? In this paper, we propose that the development of language comprehension goes through the following three phases: First, language assists the child is segmenting the non-linguistic events to be internalized and roughly interpreted. At this point, language may not even be processed qua language. That is, language may be processed more acoustically than linguistically. The first "internalization" phase (lasting roughly from 4 to 9 months) involves Peters' (1985) process of extraction but goes much beyond it with acoustic packaging. That is, children use perceived acoustic units as a guide to segmenting and unitizing non-linguistic events. For example, hearing one's mother say something akin to "Time for a

diaper change!" may help infants come to see diapering as a unique and separable events. Thus, the acoustic properties of language may assist the child in parsing the world's flux and flow into units like objects, actions or event scenes. This view presupposes that parents talk about the "here-and-now" when addressing their children directly or when describing their infants' actions (Schieffelin, 1990).

In the second, interpretation phase (from approximately 9 - 24 months), children begin to analyze within the acoustic units extracted in Phase I and to map the resulting products (words and phrases) onto their corresponding representations of objects and events. Children make these mappings in ways compatible with the semantics of their native language. When the cues from the semantic, prosodic, contextual, and syntactic systems are redundantly correlated, children show evidence of sentence comprehension (Hirsh-Pasek & Golinkoff, 1993) before they produce two-word utterances. For Phase III children (roughly 24 - 26 months), reliance on correlated cues in the input declines as their ability to perform relatively unsupported syntactic analyses increases. Now sentence comprehension can occur more often in the absence of the events being described and children can perform interclausal linguistic analysis to gain meaning. Hence, Phase III is referred to as "complex syntactic analysis" -- an advanced phase of language interpretation.

For this speculative model of comprehension to succeed it must be the case that children a) attempt to construct mental models of their world, and b) use language as a vehicle to assist in the construction. of these models. With respect to this latter point, children must recognize early on that language maps onto perceived relationships (see Hirsh-Pasek & Golinkoff, 1995). Otherwise, they would have no obvious motivation to access the information available (at a number of levels) in the stream of speech. This paper will discuss the implications of this new theoretical view and propose experiments to validate it.

RELATIONSHIPS BETWEEN LANGUAGE AND THOUGHT: COGNITION VERBS AND THEORY OF MIND

Helen Tager-Flusberg
University of Massachussetts
Boston, MA, USA

Recent studies have demonstrated that during the fourth year of life children develop a new, representational understanding of the mind which allows them to interpret people's behavior in terms of their mental states, even when they do not accord with reality or with the mental states of others. At the same time, children are developing an understanding of the complex syntactic, logical semantic, and pragmatic aspects of verbs of cognition, which allow them to talk about mental states in novel and

sophisticated ways. The studies presented in this paper explore whether these developments in the conceptual and linguistic domains are related to one another in specific or more general ways.

In the first experiment, using 39 preschoolers, we explored the relationship between theory of mind, using a standard false belief task, and preschoolers' knowledge that factive verbs of cognition (*know, forget*) block long-distance movement of wh-questions, using a task based on de Villiers et al. (1990). The main findings were that there was a significant correlation between passing the false belief task and the number of short responses on the wh-movement task: r(37)=.36, p<.05, after partialling out the effects of age. These short responses represent answering the test question which focuses on the matrix verb of cognition (e.g., *When did Mary know that Ben found the ring? When she saw it on the table*). The findings suggest that there are, indeed, close relationships between theory of mind and developing syntactic knowledge about cognition verbs.

In the second experiment we explored the relationship between performance on a standard false belief task and two psycholinguistic tasks, one tapping pragmatic sensitivity to linguistic expressions of speaker certainty and one tapping semantic knowledge of presupposition, in a sample of 24 preschoolers. In both psycholinguistic tasks the stimuli included cognition verbs (e.g., *know; think*) and non-cognition items (e.g., *possibly, definitely* in the pragmatic task, and communication verbs in the semantic task). The main findings were that (a) total scores (across both cognitive and non-cognitive items) on the two tasks were significantly correlated, r(22)=.47, p<.05; (b) looking at the cognitive vs. non-cognitive items, only the correlation between the cognition verbs on the two psycholinguistic tasks was significant: r=.67; (c) the total score on certainty was significantly correlated with false belief, r(22)=.55, p<.01; (d) false belief was significantly related to scores on certainty for both cognitive (r=.43) and non-cognitive items (r=.54); (e) in contrast, on the presupposition task, false belief was only significantly correlated with the cognitive items (r=.48).

These findings suggest that there are highly specific relationships between developing linguistic knowledge about cognition verbs and conceptual developments in theory of mind during the preschool years.

ON THE ROLE OF LANGUAGE
IN THE DEVELOPMENT OF PROPOSITIONAL ATTITUDES

Jill de Villiers   Stanka Fitneva
Smith College
Northampton, MA, USA

The problem of referential opacity has perplexed formal semanticists for a century. For instance, it is normally the case that objects can be referred to in several ways: -- the dog, Fido, our pet, the drooly mutt etc. -- and these forms can be substituted freely while preserving truth value in ordinary statements. So, for example, it is possible to say either

> The policeman tripped over the dog

or   The policeman tripped over Fido .

with no change in truth value. However, under mental verb complements, substitution does not preserve truth value: propositions become referentially opaque. So:

> The policeman knew he tripped over the dog

is not the same as:

> The policeman knew he tripped over Fido.

We argue that it is possible to capture the knowledge about referential opacity by considering not just a model of mental representations but also inferences across those representations, plus a constraint on inferences that cross embedded propositional boundaries.

A child must therefore learn that her own knowledge is sometimes irrelevant to calculating the truth of a statement: what sometimes matters is what is in other people's minds, not in her own. But then what if the child does not have an appropriate way to represent the boundaries of one person's knowledge versus another's? Studies in theory of mind have shown that children younger than 4 often make the mistake of attributing their own knowledge to other persons. Then the child should allow inference where adults disallow it. But is it simply that until the child learns about other persons' knowledge, they cannot adequately express propositions concerning their mental states?

We illustrate on the basis of the inference model that the problem of referential opacity is equivalent to failing to appreciate / represent the level of embedding of propositions. We then put forward the claim that fixing the properties of true sentence complementation makes available a new representational capacity for propositional attitudes, such as false beliefs.

Empirical evidence is presented that constraints on referential transparency and mastery of false belief understanding are simultaneous in childhood. 30 preschool children were classified into passers and failers of traditional theory of mind tasks, and then presented with short stories and questions involving ordinary verbs and mental

state verbs. The references in the questions were either the same as in the story or substitutions:

Did the policeman trip over the dog / Fido?

Did the policeman know he tripped over the dog / Fido?

and the subjects of the sentences either knew the referential equivalence (the dog=Fido) or not. The children who failed false belief tasks were unable to detect the constraints on referential substitution, allowing it in places where adults and children who passed false belief tasks objected to the switch in reference. It is possible then, that formal language structures play a crucial role in the child's ability to entertain propositional attitudes about other persons.

LANGUAGE AND COGNITION: THE RELATIONSHIP BETWEEN 'THEORY OF MIND' AND 'LANGUAGE ABOUT THE MIND' IN DEAF CHILDREN

Peter de Villiers
Smith College
Northampton, MA, USA

Elaine Gale
University of Nebraska
Lincoln, NB, USA

Jennie Pyers
Smith College,
Northampton, MA, USA

Children's acquisition of a mature representation of their own and others' mental states (a "theory of mind") is a major conceptual and social achievement between the ages of 4 and 5. Although many theorists have focused on cognitive and social changes as the central factors driving children's development of theory of mind (e.g. Leslie, 1987; Hobson, 1989; Gopnik, 1991), recent work has emphasized the contribution of language acquisition (Wellman, 1990; Tager-Flusberg & Sullivan, 1994; J. de Villiers, 1995). Studies of deaf children's understanding of theory of mind provide a strong test of the contribution of language to conceptual development, since these children are of normal nonverbal intelligence and social development, even while they may be considerably delayed in language acquisition.

We tested 33 moderate and profoundly deaf children of normal nonverbal intelligence and socialization who varied in age from 4 to 10 years. Eighteen were in an oral educational program, with no formal exposure to sign language; the other 15 were in an American Sign Language intensive bilingual-bicultural program. Students in the ASL program had deaf teachers, and the primary medium of communication in the classrooms was ASL, so they were acquiring ASL as their first complete language. The children were given standard tests of their understanding of false beliefs (Baron-Cohen et al, 1985; Perner, 1990) (translated into ASL for the signing deaf children) and a nonverbal hide-and-seek task that required for its solution an understanding of other

people's states of knowledge (Povinelli & deBlois, 1992). Narratives and explanations of actions in terms of cognitive states were also elicited from the children in oral English or ASL using videotaped clips of wordless/soundless cartoons.

For both oral and signing deaf children, the understanding of other minds was delayed relative to hearing preschoolers in both the more verbal standard tasks and the nonverbal task. The average age of the children passing the false belief tasks was 7:4 for the oral group and 7:6 for the signing group; a nonsignificant difference between them, but considerably older than the average age of 4:6 of hearing preschoolers passing the same tasks. Surprisingly, there was no difference for either group between performance on the standard verbal tasks and the nonverbal test of theory of mind. More importantly, theory of mind development across all of the tasks was most closely predicted by the deaf children's use of language about characters' cognitions when explaining actions. Spontaneous use of verbs of cognition in complex utterances about the thoughts and beliefs of the protagonists in the cartoons was more highly correlated with mastery of the theory of mind tasks (oral children: $r(16)= +.66$, $p < .01$; ASL children: $r(13)= +.64$, $p < .01$) than was age (oral children: $r(16)= +.39$, ns; ASL children: $r(13)= +.56$, $p < .05$). In addition, for the ASL children, the narratives were rated for overall complexity of their ASL vocabulary and syntax. This general measure of language level was not significantly related to their performance on the theory of mind tasks ($r(13)= +.26$, ns) though it was related to their use of cognitive verbs ($r(13)= +.68$, $p < .01$).

Thus, we argue in this paper that it is specifically the acquisition of language about the mind and the complex syntax required for reference to cognitive states that is predictive of, and probably facilitates, the development of a complex representation of other minds.

THURSDAY   Session C
14:00 - 15:30   Room C

FUNCTIONAL CONSTRAINTS ON ELLIPSIS

Convener: Edith Bavin

Sigal Uziel & Ruth Berman
Edith Bavin
Shanley Allen
Harriet Jisa
Hrafnhildur Ragnarsdottir, Sven Stromqvist & Kim Plunkett
Melissa Bowerman

The focus of the workshop is to examine ellipsis from the perspective
that there are interactions amongst grammar, typology and discourse
(usage). The papers will develop issues raised at a workshop held as
part of the Functional Linguistics Conference in Albuquerque, July 1995.

Most research to date on the topic of ellipsis reported from first language
acquisition has focused on subject ellipsis from the perspective of the
Pro-Drop parameter. However, it is clear from our knowledge of
crosslinguistic acquisition data that there is a need for more analysis of
(a) which elements are missing from child productions, (b) what counts
as ellipsis, (c) what factors influence such ellipsis, and (d) what
developmental changes are observed.

In order to offer explanations as to why some elements are missing in
child productions, there is a need to consider patterns in the input as
well as patterns in the child's language. There are differences across
languages in what may be elided as well as different constraints on
usage. For example, while some languages allow pronoun subjects to be
dropped, there are contexts in which speaker chooses to use a pronoun
subject, and in non Pro-Drop languages, subjects of non-finite clauses
may be required to be elided.

Arguments other than subjects may be dropped, particularly if they are
recoverable from the context (both linguistic and non-linguistic). Such
ellipsis may relate to topic continuity. Yet another difference in ellipsis
patterns across languages relates to satellite arguments, such as 'path'.

The papers in the workshop present data from a variety of languages. They focus on which arguments are missed out in child language and in which contexts. Both naturalistic productions and elicited narrative data are considered. In offering explanations for patterns of ellipsis noted, consideration is given to the language typology as well as to the typology of use, that is the patterns in the input to the child.

WHERE'S ELLIPSIS? WHETHER AND WHY THERE ARE 'MISSING ARGUMENTS' IN (HEBREW) CHILD LANGUAGE

Sigal Uziel   Ruth Berman
Tel Aviv University
Tel Aviv, Israel

This study proceeds from earlier work on the distribution of null, pronominal, and lexical subjects in Hebrew-speaking children's conversational interactions and narrative discourse (Armon-Lotem, 1994; Berman 1990). Longitudinal data from three children aged 18 to 36 months is examined to demonstrate, first, that what appear as elisions in early usage stem Prom an interaction between typological factors governing language structure AND use, on the one hand, and contextually determined pragmatic considerations, on the other; and, second, that early "pre-grammatical" usage gives way to structure-dependent command of grammatical verb-argument structure, which then needs to be adapted to the requirements of discourse-appropriateness and informativeness. Two further issues will be addressed: Whether children's early usage is best characterized as "elliptical" and what, if any, purpose is served by confining analysis of "verb-argument structure" to the domains of grammatical subjects and objects.

ELLIPSIS IN WARLPIRI CHILDREN'S PRODUCTIONS

Edith L. Bavin
La Trobe University
Bundoora, Victoria, Australia

The paper reports on naturalistic production data and narratives elicited from Warlpiri children aged from 2-11 years. It compares the use of ellipsis (of subject and object nominals) as a discourse organizing

strategy in the narratives of the older children and the more general use of ellipsis of these and other arguments in the productions of the younger children. One of the more notable features of the early productions is the lack of agent arguments, which (it is argued) relates to the child's reliance on the non-linguistic context as well as a focus on resulting states rather than causality. The relation between bound arguments and full noun phrases is discussed in terms of typological features, and the repetition (as opposed to ellipsis) of arguments in the productions is discussed as a feature of patterns of use in the input.

NULL SUBJECTS AND NULL OBJECTS IN EARLY INUKTITUT

Shanley Allen
Max Planck Institute for Psycholinguistics
Nijmegen, The Netherlands

This paper will address the early representation of subjects and objects in Inuktitut, an Eskimo language spoken in northern Canada, as shown in data from four Inuit children aged 2;0 through 3;6. In Inuktitut, both subjects and objects can be dropped due to rich verbal agreement for both arguments. Analysis of some 2S00 verbal utterances indicates that only about 10% of subjects and 40% of objects are overt across the board; figures are increased to some 30% for subjects and remain the same for objects when only 3rd person arguments are considered. The paper will present various formal and functional reasons for selective overt representation of arguments, including the effects of person, antipassive clauses, verb class, and pragmatic prominence. Data will also be compared to adult input.

SUBJECT ELLIPSIS IN FRENCH NARRATIVE DISCOURSE

Harriet Jisa
University of Lyons 2 & CNRS
Lyons, France

Unlike other Romance languages, French is not a pro-drop language. Thus, when maintaining a referent across two coordinated clauses, speakers have the option of using ellipsis, repeating the subject noun, or using a subject pronoun. Based upon narratives collected using the picture book Frog, Where are you? (Mayer 1969) it will first be shown

that the frequency of subject ellipsis increases across the age range
investigated (3/4- 5-, 7-, 10/11-year olds and adults). Second, I will
attempt to show that the development of ellipsis may in fact be part of a
larger developmental picture: the acquisition of the written register. In
the conclusion two questions will be examined: 1) what is the status of
the subject pronoun in spoken French?; 2) what effect
does this status have on the developmental analysis of pronouns?

VARIATIONS IN VERB ARGUMENT STRUCTURE IN SCANDINAVIAN CHILD LANGUAGE DEVELOPMENT

Sven Stromqvist
University of Gothenberg
Gothenberg, Sweden

Hrafnhildur Ragnarsdottir
University College of Education
Rejkjavik, Iceland

Kim Plunkett
Oxford University
Oxford, UK

The present study identifies two areas in Scandinavian (Danish,
Icelandic, Swedish) child language development where arguments to
verbs show a probabilistic distribution. The first area is grammatical
subjects in an early phase, before the 90% creterion is attained. The
second area is locatives (landmarks and location). A first finding is that
pragmatic and semantic factors are good predictors of the distributions
observed, not the least when the children's production patterns deviates
from the targets. A second finding is that there are language specific
effects on the extend to which children encode locative arguments.

ELLIPSIS OF PREPOSITIONAL OBJECTS IN EARLY ENGLISH AND DUTCH: FUNCTIONAL AND FORMAL CONSTRAINTS

Melissa Bowerman
Max Planck Institute for Psycholinguistics
Nijmegen, The Netherlands

Some prepositions require an object (e.g., English to, at, with), while
others can appear both with and without one: (e.g., John put the ball in
the box / John put the ball in; I walked down the stairs / I walked down;
He ran through the tunnel / He ran through). Prepositions whose objects

can be omitted have been called "optionally intransitive" by analogy with verbs like eat. Complex constraints, both functional and formal, govern the circumstances under which a prepositional object bay be omitted, and these may differ even in closely related languages. Constraints in English are, first, that an omitted complement has a definite interpretation and so it must be retrievable by the listener on the basis of linguistic or nonlinguistic context (in this it differs from the omitted complements of verbs like eat, which have an indefinite interpretation). Second, the construction must express **directed motion**; with certain exceptions, omission is not possible with constructions expressing static location: cf. John put the ball in the box / John put the ball in vs. I'll show you what's in it / this / here / * I'll show you what's in. Third, omission is sensitive to semantic subclasses of verbs, e.g., spray / load-type verbs allow it (We sprayed the paint on the car / We sprayed the paint on), but verbs of forceful contact do not (Let's move that lamp; I keep hitting my head on it / ... keep hitting my head on). In Dutch, objects may be omitted for fewer prepositions than in English, and even then typically under much more restricted circumstances. This paper examines the acquisition of constraints on the omission of prepositional objects by children learning English, with comparisons at points to children learning Dutch to disentangle the extent to which children's early provision / omission of prepositional objects is determined by sensitivity to functional vs. formal constraints. Children show sensitivity to constraints of both kinds remarkably early, by age two years or before. Possible learning mechanisms are discussed.

CHILDREN'S EARLY LANGUAGE SKILLS: PRODUCTION AND COMPREHENSION OF MENTAL STATE REFERENCES

Convenor: Luigia Camaioni & Haydee Marcos

Antonella Devescovi & Emma Baumgartner   University of   Rome "La Sapienza", Rome, Italy:
> PSYCHOLOGICAL LEXICON IN CHILDREN'S STORY
> TELLING: A COMPARISON BETWEEN CHILD-CHILD
> INTERACTION AND ADULT-CHILD INTERACTION

Luigia Camaioni & Emiddia Longobardi   University of Rome
> "La Sapienza", Rome, Italy:
> EARLY REFERENCES TO INTERNAL STATES AT 20
> MONTHS OF AGE

Haydee Marcos & Josie Bernicot   University of Paris 5, &   CNRS, Paris, France:
> REFORMULATION OF REQUESTS AND ASSERTIONS AT 2;6:
> COMMUNICATIVE SKILLS AND CONVERSATIONAL SKILLS

Edy Veneziano   University of Nancy 2, Nancy, France:
> DISCUSSANT

The three contributions concern young children's skills both to express their internal states and to understand the partners' internal states.

The issue of expression is dealt with in two papers. The first paper bears upon an early stage of the development of this skills, namely the end of the second year. The authors are interested in investigating not only which internal state references children are able to use at 20 months of age but also how these references are used and what they may tell us about children's early theory of mind. Thus instances of genuine psychological references are distinguished from other uses, such as conversing or requesting. For the same purposes, the authors evaluate whether the children are able to use internal-state terms to refer to non-present experiences (past, future and hypothetical situations, refusals and denials) and whether the internal vocabulary was applied to self and other rather than used only for self or other. The sample consisted of 21 children from middle class Italian -speaking families living in Rome. Children 20-month-old were observed with their

mother for about 40 minutes in two different contexts: "play with familiar toys" and "meal time". Observations were videotaped.

The second paper deals with the expression of internal states in pre-school children. The aim is to verify if: (1) pre-school children use language which refers to psychological states mainly in a causal linguistic context and (2) the interaction with known peers facilitates the use of psychological lexicon. Children were observed in two different settings. In one of these they were "reading" a book together in their school; in the other one, children were telling the same story to an experimenter. The sample included 54 children, aged 3-4 and 5-6 years. Results indicate that there were no differences between the different age groups on psychological lexicon whereas a significant effect of the causal discourse and of the partner was found. In addition, the ability to justify the use of psychological lexicon increases with age.

The issue of understanding of internal states is dealt with in the third paper. This understanding is inferred from the type of reformulations of failed messages. An experimental study was conducted in order to analyse the reformulation of assertions and to compare with the reformulation of requests. Two groups of twelve native French-speaking children aged 30 months participated in the experiment. The first group performed a task involving requests. The second group performed a task involving assertions. The child's conversational partner was the experimenter. Three experimental situations were compared: (a) *satisfaction*: the adult immediately satisfied the request or agreed with the child's assertion. (b) *clarification*: the adult asked for a clarification (c) *refusal*: the adult refused to satisfy the request or rejected the child's assertion. The gestural and linguistic behaviors were coded from the videotapes. Results show that for assertions and for requests, in cases of communication failure, children at this age are indeed capable of varying their reformulations to suit their partner's behavior; the variations observed for these two acts differ in the communication medium used and the utterance content. These variations reveal that young children are able to take into account the partner's response to the initial message as an expression of his/her internal state.
The discussant of this workshop investigates similar issues.

FRIDAY   Session: PLENARY
10:00 - 10:50   Room B

PRINCIPLES VERSUS PREFERENCES

Stephen Crain
University of Maryland
College Park, MD, USA

ON PRE- AND PROTO-MORPHOLOGY

Convenor: Wolfgang U. Dressler, University of Wien, Wien, Austria

Mariane Kilani-Schoch   University of Wien, Wien, Austria
Anna de Marco   University of Wien, Wien, Austria
Anastasia Christofidou   University of Crete, Crete, Greece
Ralf Vollman   University of Wien, Wien, Austria
Maria Vasssilakou   University of Wien, Wien, Austria
Steven Gillis   University of Antwerp, Antwerp, Belgium
Dorit Ravid   Tel Aviv University, Tel Aviv, Israel
Livia Tonelli   Universita of Trieste, Trieste, Italy
Giuseppe Capelli   Institute of Computational Lingistics, CNR, Pisa,
                              Italy
Serena Bonifacio   Institute for Infancy "Burlo Garafolo", Trieste, Italy
Elisabetta Lanzetta   National Center for Research (CNR), Pisa, Italy
Tatiana Linnik   Potebnya Institute of Linguistics, Kiev, Ukraine

Wolfgang U. Dressler: Introductory Remarks: This workshop comes from
a project on the early phases of morphology in two dozen languages. The
main paradigms used in this project are functionalism, Natural
Morphology and constructivism (cf. Dressler & Karpf, Yearbook of
Morphology 1994). It is assumed that the module of morphology and its
submodules (e.g. inflectional morphology) are not innate but constructed
by each child, in creative interaction with its (esp. language-particular)
input and much interindividual variation. Main periods before the rise
of modularised morphology are premorphology (only rote-learning of few
forms with pattern selection) and protomorphology (with creative
construction of patterns).

Marianne Klani-Schoch, Anna de Marco, Anastasia Christofidou, Maria
Vassilakou, Ralf Vollmann, Wolfgang U. Dressler: On the demarcation of
phases of early morphology acquisition in four languages: Comparative
longitudinal study of 6 children from 4 article languages (French, Italian,
Greek, German), all "fillers-children". Use and domain of fillers first
extend with grammatical awareness, then differentiates phono-
morphologically, finally is differentially replaced by grammatical

markers, first in competitive coexistence. In premorphology, inflected word forms are rote-learned, with restricted pattern selection (e.g. few tokens of verbs, mostly Imp., Inf., 3.Sg.Pres.Ind). In protomorphology, children start to construct morphology: fillers specialize as precursors of grammatical markers; articles; first analogies and blind alleys of acquisition (which are soon given up again). With the transition to modularized morphology, increase in syntactic complexity and decrease of fillers, productive use of inflection, existence of difference classes of (mini-)paradigms.

Steven Gillis: Disentangling phonology and morphology in the pre-and proto-morphological stage: Two alternative lines of explaining early mono-and bisyllabic word forms are discussed, i.e. via phonology (prosody in metrical terms) vs. via precursors of morphology. For example, is the child's form [kas@] due to metrical addition of schwa to adult Dutch/ka:rs/ or a rendition of a plural or diminutive form? The empirical focus is on an in-depth longitudinal study of one Dutch-learning child.

Dorit Ravid: Early Morphological Development a Duo: Pre-to Proto-Morphology in Hebrew-Speaking Twins: This contribution traces the early lexical, morphological and syntactic stages in the speech of 2 Israeli twins over a period of 5 months. At the beginning of this period both were at the 2-word stage, with no productive morphology and no initiated syntactic structures. At the end of this period they were both already making productive morphological mistakes, lexical categories had been extended from nouns and verbs to adjectives and adverbs. It is shown that active syntax appears together with proto-morphology and with the expansion of the child's lexicon.

Livia Tonelli, Giuseppe Cappelli, Serena Bonifacio, Elisabetta Lanzetta, Wolfgang U. Dressler: The application of MORF to the study of development of Italian verb morphology: Longitudinal data of children recorded in Trieste has been submitted successfully to an automatic morphology analysis (MORF; developed in Pisa and tested with adults). Classification of Italian verbs and linguistic data analysis is done within the framework of Natural Morphology. Advantages of MORF and its applicability to other languages of the project are presented.

Tatiana Linnik: Ukrainian verb inflection in early acquisition: This paper instantiates the project's approach to early verb inflection with longitudinal data from a major Slavic language whose acquisition has been scarcely described so far.

FRIDAY   Session B
14:15 - 15:45   Room B

DEVELOPING A VERB CATEGORY

Convenor: Elena Lieven

Elena Lieven   University of Manchester. Manchester, UK   &
Julian Pine   University of Nottingham, Nottingham, UK:
          DEVELOPING THE ENGLISH VERB CATEGORY
Anat Ninio   The Hebrew University, Jerusalem, Israel:
          PATHBREAKING VERBS IN SYNTACTIC DEVELOPMENT -
          ENGLISH AND HEBREW
Shanley Allen   Max Planck Institute for Psycholinguistics, Nijmegen,
          The Netherlands:
          THE DEVELOPMENT OF MORPHOLOGICAL AND LEXICAL
          CAUSATIVES IN INUKTITUT
Soonja Choi   San Diego State University, San Diego, CA, USA:
          MORPHOLOGICAL AND SEMANTIC DEVELOPMENT OF
          VERBS IN KOREAN

Michael Maratsos   University of Minnesota, Minneapolis, MN, USA:
          DISCUSSANT

Verbs form the backbone of sentential structure and this is reflected in a
resurgence of interest in the question of how the grammatical category of
verb develops. This workshop will explore this question through a
crosslinguistic approach largely, but not exclusively, focussing on
naturalistic studies.

One reason for the current interest in verbs is that there are now a
number of fairly well-developed theoretical frameworks which address
this issue and make competing predictions. From a Universal Grammar
perspective, the lexical category of verbs emerges early and the
development of basic argument structure is also early, with later
developments (e.g. tense, auxiliaries) depending on the maturation of the
system of functional categories (Radford 1990). A very different
perspective suggests the slow build-up, initially on a verb by verb basis,
towards a general verb category, with the syntactic mapping of argument
structures initially confined to individual verbs (Tomasello 1992). In this
workshop we will be examining the order of the development of
particular features of the verb and their generality across verbs in the

light of the very different grammatical structures that we encounter crosslinguistically in English, Hebrew, Inuktitut and Korean.

We will be reflecting on whether there are any crosslinguistically general answers to the question of when the category of verb can be said to have developed and on future research that would be required to solve this problem both for the languages under review in the workshop and others.

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