Round Table Conference

To What Extent Can Research Findings in Bilingualism Be Generalised?

Issue 1

How does the language-learning context affect research findings?

"**In order to understand bilingual children's language acquisition, one must also understand the social-cultural context in which development takes place**"

Hammer, Miccio & Rodriguez, 2004

Early vocabulary development: children brought up in Maltese-speaking families

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The language learning context of Maltese children

- Societal bilingualism

- Maltese is the language most spoken in the home setting

- Systematic exposure to the second language through schooling

Child-directed speech in the Maltese context

- **Maltese-speaking adults embed English words in Maltese syntactic frames**

- **Mixed language input**

- **A widespread pattern that occurs at a societal level**

Expressive lexical development

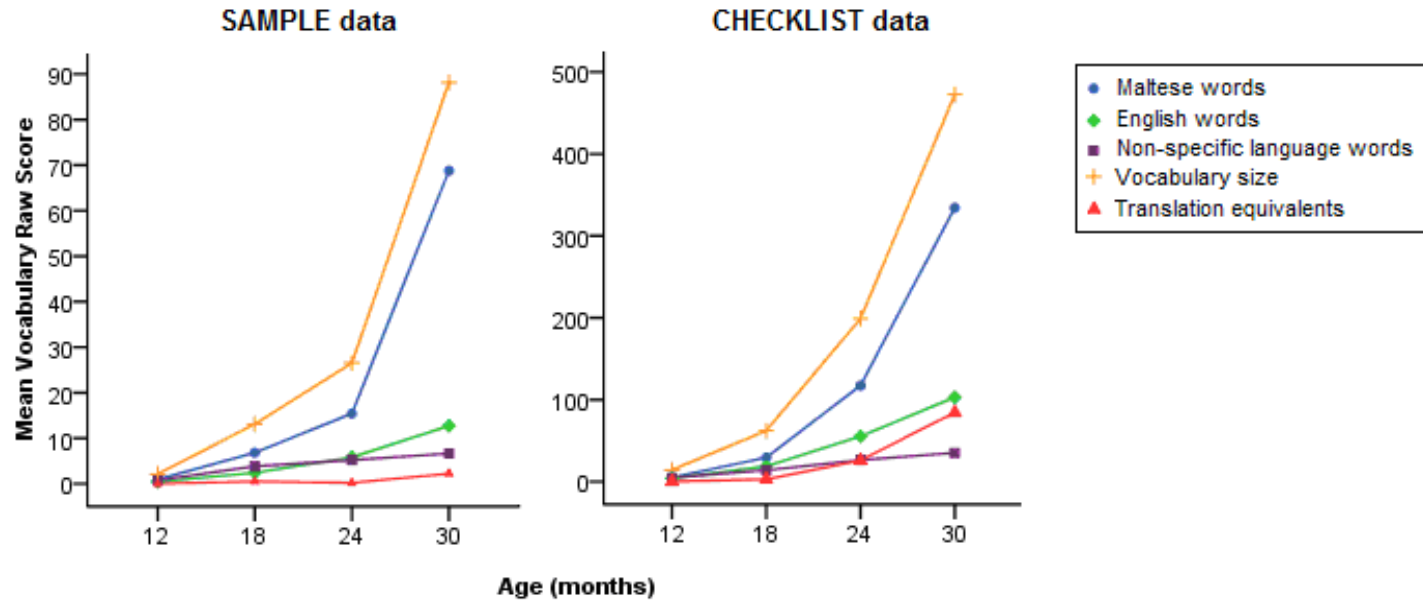**Language background questionnaire**

- 'mostly Maltese with some English words' = 96.7%

- 'Maltese only' = 3.3%

Sample and checklist measures of words used

- 12 months: N = 20

- 18 months: N = 19

- 24 months: N = 20

- 30 months: N = 17

Word frequencies

SAMPLE data — CHECKLIST data

Legend: Maltese words, English words, Non-specific language words, Vocabulary size, Translation equivalents

- Maltese word counts approximated total vocabulary count (types for sample data).

- Slower growth rate for English words, with discrepancy in relation to Maltese words increasing with age.

- Limited equivalent use represented little overlap in adult input

Word proportions

SAMPLE data / **CHECKLIST data**

Legend:
- Maltese words
- English words
- Non-specific language words
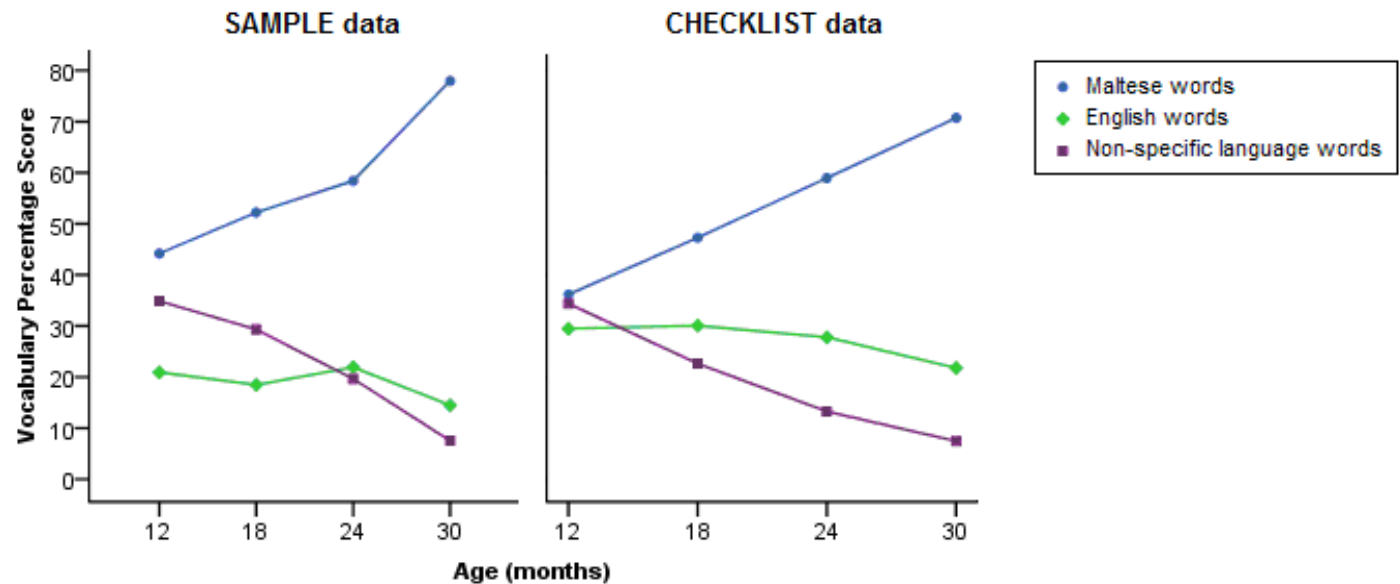
- Limited English exposure may have limited children's capacity for word combinations

The effect of language learning context

- **Mixed input possibly introduced children to language contact in the wider community**

- **English vocabulary specific to adult-child dyads may have constituted a baby word lexicon that was gradually phased out**

- **Language input must exceed single words in order to support flexible word combinations**

Samoan-English Speaking Children Living in Australia

Gayle Hemsley, Alison Holm & Barbara Dodd

**Centre for Clinical Research,
University of Queensland, Australia**

Samoan-English bilinguals

- Largely 1st and 2nd generation

- Strong cultural identity

- Very few homes where English is not used to some extent

Language use at home:

- **Parents and other adults used Samoan 'most of the time' when speaking to children and each other**

- **By the time children started school they used English 'most of the time' when speaking to other children and adults**
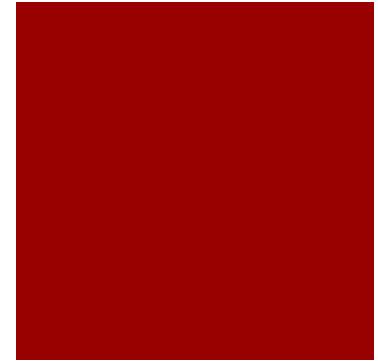
Receptive Vocabulary

Halfway through first year at school (n=9)	Mean Bilingual Samoan Score	Mean Bilingual English Score	Mean Bilingual Composite Score	Mean Monolingual English Score
	57.6	49.8	66.9	65.67

*Scores out of 72

Expressive Vocabulary

| Halfway through first year at school (n=9)	Mean Bilingual Samoan Score	Mean Bilingual English Score	Mean Bilingual Composite Score	Mean Monolingual English Score
	12.2	40.2	44.3 ⟷	60.44

*Scores out of 72

Longitudinally...

During the first two years of school:

- significant lexical development in both Samoan and English

- receptive and expressive lexical scores remain significantly below those of monolingual English peers.

Word Classes Test (English):
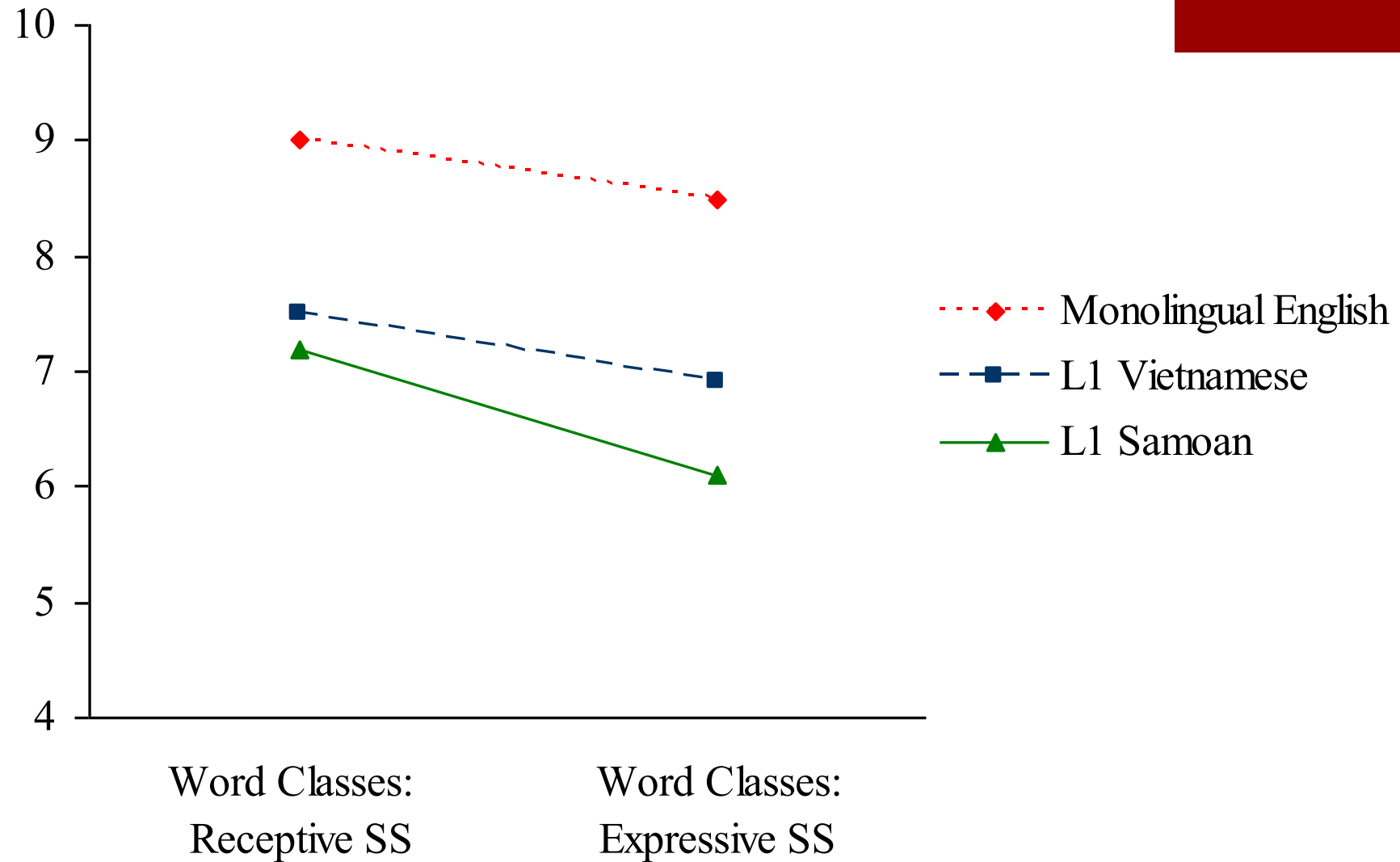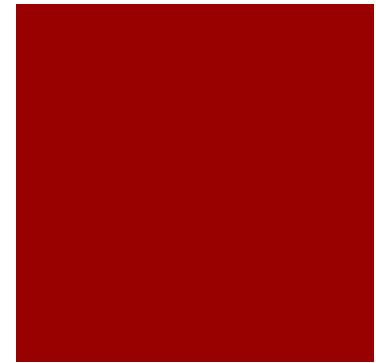
Semantic Processing Skills of Grade 1 English Language Learners in two educational contexts

Heila Jordaan

Department of Speech Pathology and Audiology

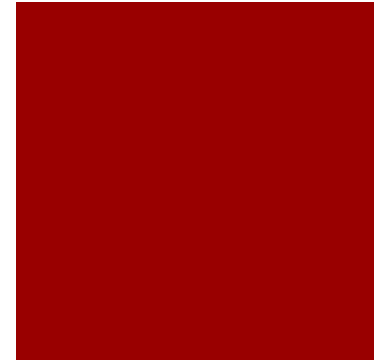School of Human and Community Development

University of the Witwatersrand

Contexts

Context 1:

Children are

- From a range of home language backgrounds, including indigenous and other African languages.
- English Additional Language (EAL) learners
- Learn at a pace conducive to the whole class of EAL learners

Teachers are

- EAL- speak *some* of the children's languages
- sensitive to the needs of EAL learners
- adopt a multilingual approach

Disadvantage : teachers not able to teach as effectively in English -their second/additional language.

Context 2

- First and additional language speakers of English integrated in the same classes
- Teachers first language is English.
- Children required to learn in English only
- Compete with children speaking English as a home language.
- Not able to use their home language to learn which may affect their rate of learning
- **Advantage**: EFL teachers and learners provide native language models for the EAL children.

INSTRUMENT: SEMANTIC SUBTEST OF DIAGNOSTIC EVALUATION OF LANGUAGE VARIATION CRITERION –REFERENCED (DELV-CR)

- appropriate for assessing language for academic purposes in any context: verb and preposition organisation, quantifiers, fast mapping.

- designed to capture aspects of language important for early schooling and transition to literacy (De Villiers, 2004).

- assesses processes of language learning as opposed to surface content

- appropriate for children aged 4.0 to 9.11

Results: Means (%) for each group: EAL (Context 1 & 2), and English First Language
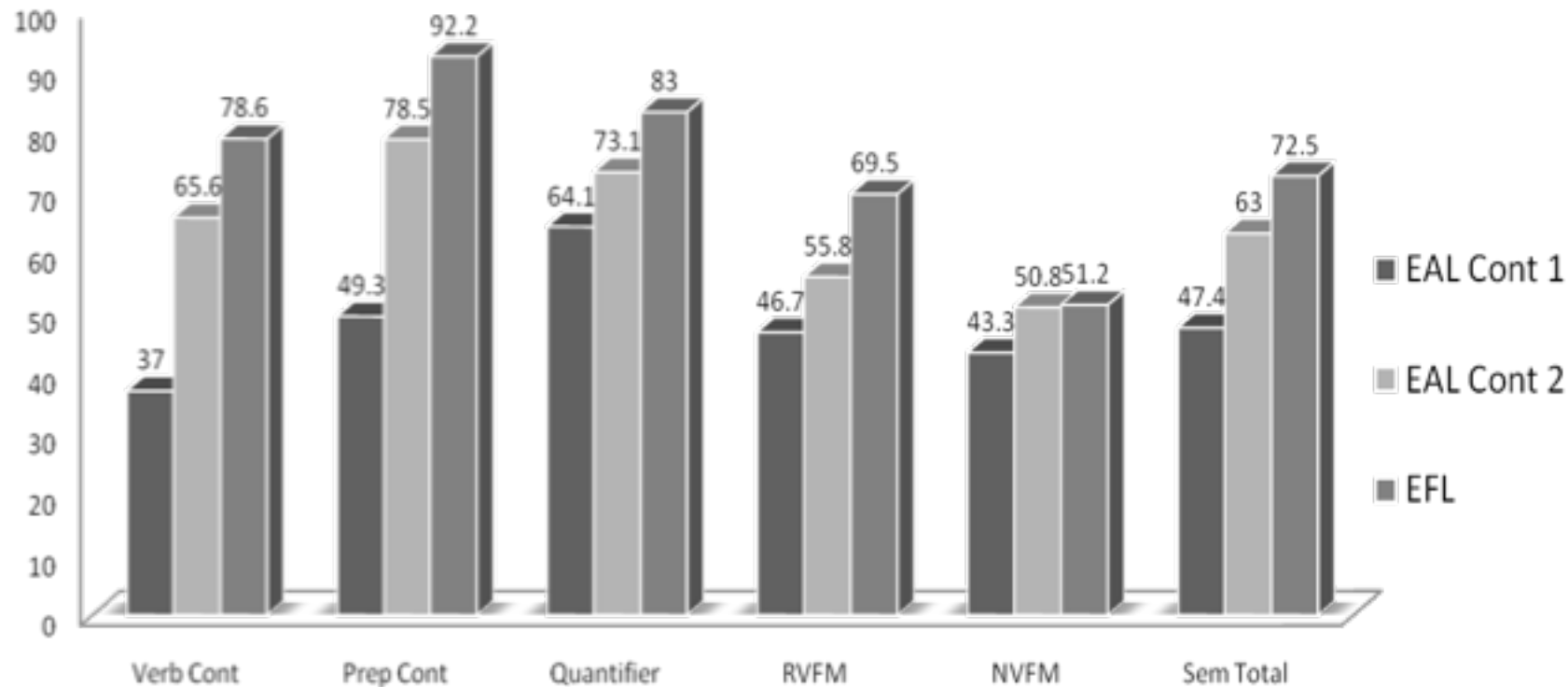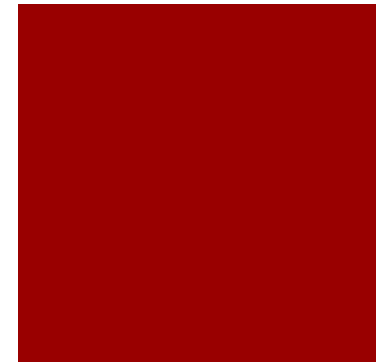
Conclusions

- Results refer only to limited set of language skills involved in academic language and literacy.

- EAL children not at same level as monolingual peers - need support for vocabulary learning.

- Skills can be developed through explicit instruction as shown when concepts are taught in context (e.g. quantification and mathematics).

- EAL learners may catch up to EFL peers BUT what are the effects of a protracted period of oral language development on literacy attainment?

- Cannot adopt "wait and see" approach- learner support should not be withheld.

- Even where EAL and EFL learners are integrated , specific language skills need to be developed, since all children can benefit from a "language-rich diet" (Clegg, 1996, p12).

Conclusions
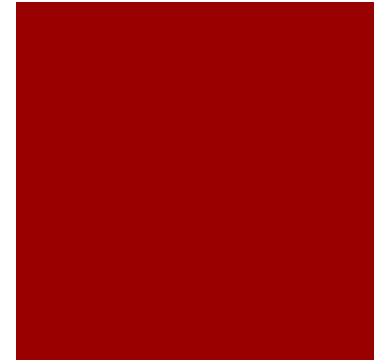
- Limitation: class room observations not conducted

- BUT there may be linguistic benefits to integration of first and additional language learners.

- EFL teachers may be more effective at teaching in English.

- Training and support for EAL teachers and learners is indicated- discrepancies between contexts of education not appropriate.

- All teachers need to become effective language teachers to meet challenges facing our country in 21st century.

- Speech –language therapists are a useful resource in collaborating with teachers to achieve this goal.

- There is a need for SLT services in mainstream schools (O'Connor and Geiger, 2009)

The Importance of Context
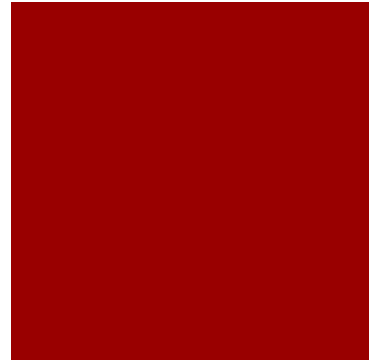
- **Input models determine language output.**

- **Language dominance is crucial in determining language choice in specific communicative situations, irrespective of proficiency**

- **Assessment and Intervention Problems:**
  - **What constitutes normal language difference in sequential bilingualism?**
  - **Choice of language for assessment and intervention (and materials).**
  - **Grammatical and lexical adaptations in clinicians' child-directed speech.**

Discussion
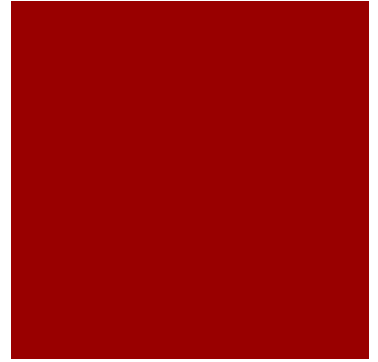
Action

- **Should the IALP draw up a preliminary classification system of multi-lingual language learning contexts?**

Implementation

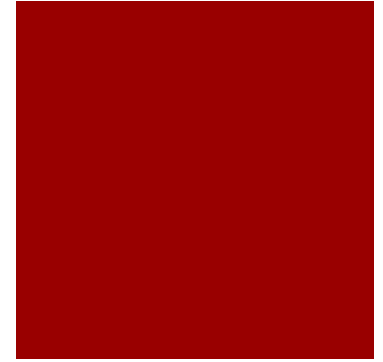- **If such a classification system is worthwhile for clinical management and clinical research, how might it be disseminated?**
  - Educational courses
  - Incorporated in guidelines
 - Review articles

Issue 2

- **Are research findings for one aspect of language relevant for other aspects of language?**

- Are findings for one of a bilingual's languages relevant for the other?

Kakia Pertinou

University of Cyprus

Phonology: Issue I

- **Are research findings for one aspect of language relevant for other aspects of language?**
  - Research on one aspect of language (e.g. semantics) is not necessarily indicative of other language aspects (i.e., phonology), particularly in communication disorders.
  - For example, typical vocabulary skills can occur with atypical morphosyntax (syntagmatic versus paradigmatic aspects)
  - What is spared and what is lost in connected speech might predict the relationship between morphology and phonology, and may predict MLU-W
  - In Cypriot Greek, phonological saliency (metrical foot of the utterance) determines the sparing of object clitics and grammatical inflections (Petinou et al, in progress)
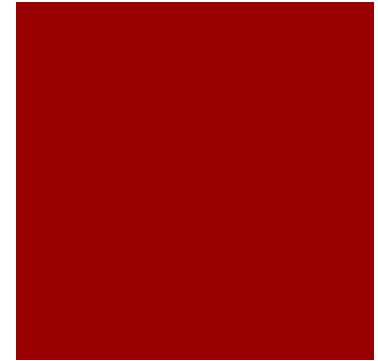
Results

- **Greek (GR)**
  - Augment effect – real (RVs) and pseudo verbs (PVs)

Target Responses (TRs)
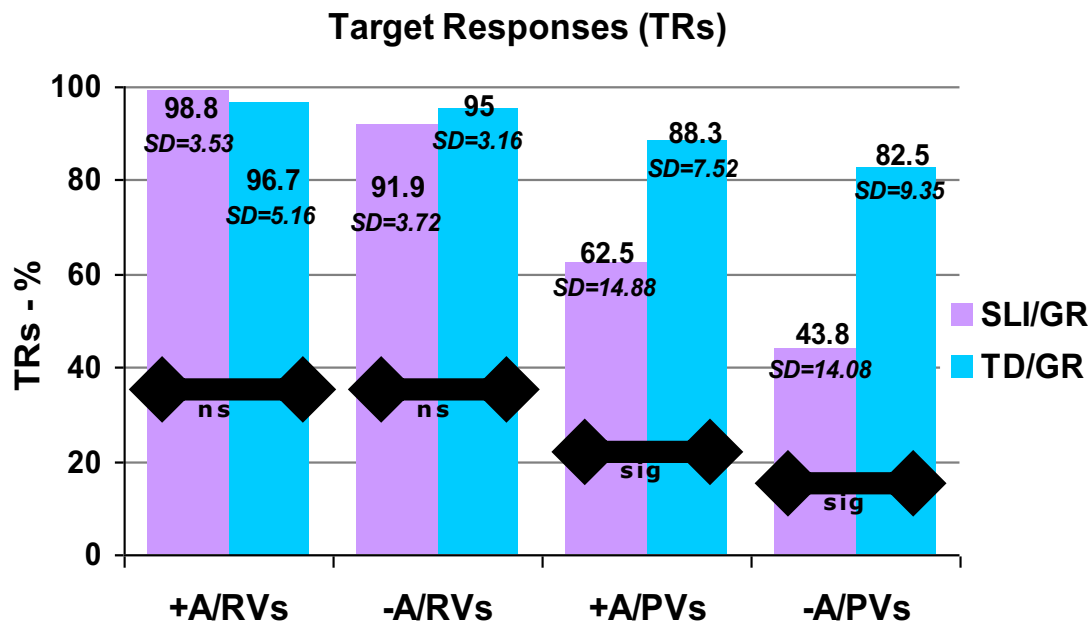
Significant main effects:

Augment (F=12.683, df=1, p<.01),

RVs vs. PVs (F=101.365, df=1, p<.001),

Interaction

RV/PVs * group (F=36.975, df=1, p<.000).

Examples with object clitics

- ['ida   se]   Cypriot-Greek

- [I saw   you]

- ['**e**piasen   to]   Cypriot-Greek

- [to '   pciase]   Standard Greek

- [she it   took]

- [{e}'potisen   to]   Cypriot-Greek

- [she watered it]

Phonology: Issue 2

- **Are findings for one of a bilingual's languages relevant for the other?**

  - Bilingual children usually use different developmental error patterns to those used by monolingual speakers of the two languages learned (Holm, 1996).

  - Findings for one language might explain the existence of "atypical" productions in the other language (i.e., phonological error patterns transferring).

  - However, phonological error patterns are often different for the two language spoken (e.g. 'fronting' in English but 'backing' in Cantonese).

  - While intervention targeting articulation shows cross-language transfer, phonological intervention does NOT transfer.
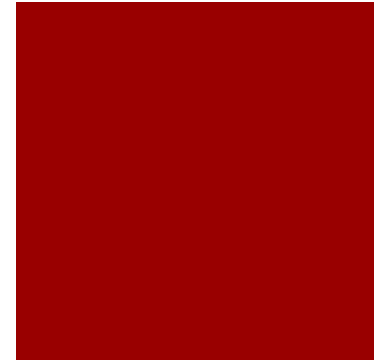
Data from Cypriot-Greek /English speaking children
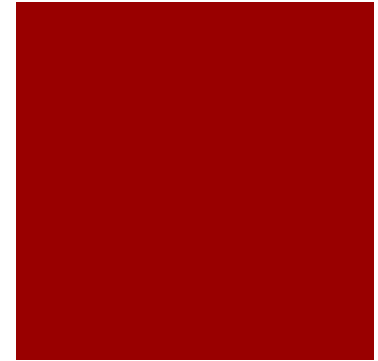
- **Distinguishing delay from disorder is difficult in bilingual children's phonological acquisition due to L1-L2 interference.**

- **Example 1: the presence of geminates word-medially triggers omission of word initial consonants (Petinou & Okalidou, 2006). This error pattern was used in both languages by 6, 3-year- old late talkers. The error pattern persisted beyond 6 months (the study time span).**

  The error pattern is typical for monolingual CY-G children. It is NOT typical for English (Paul & Jennings, 1992; Rescorla, 1996)

- **Example 2: Voicing errors in children with a diagnosis of PDD and phonological disorder. Transferring of the pre-voicing category from CY-G to E ([b] targets->[mbl] realizations), but no difficulty with voiceless un-aspirated and voiceless aspirated categories on cognate target words (coffee, camel, pen, telephone).**

Syntax

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One system at the start?

- Bilingual children produce *mixed utterances* at the initial stages of syntactic development.

- Is this evidence for an initial *single* syntactic system?

- Let us refine the question first:

One system at the start?
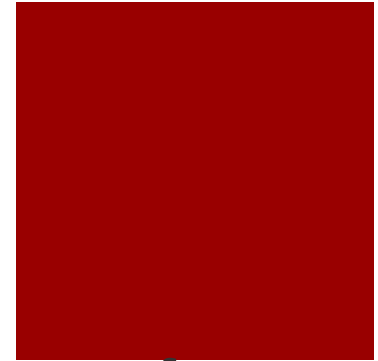
- Genesee (1989): *context* as the measure of language differentiation.

- Positive evidence for the single-system hypothesis: if bilingual children use items from both languages regardless of context.

- Positive evidence for the two-system hypothesis: if children use items from their two languages differently in different contexts, e.g. using the mother's language when addressing her, and so on.

But why would language mixing occur at all?

- Genesee (1989): Language mixing could occur even with separate systems for each language.

- Maybe:
  - children *code-switch* because one of the systems is incomplete - does not include the grammatical device required to express particular concepts – L2 learners do that all the time.
  - the grammatical device is available in the language currently in use but it may be more complex than the corresponding one in the other language: the child chooses the simpler device e.g., English and Italian question formation.
  - children model utterances *on mixed input* produced by adults or other children.

Two systems

- Young bilinguals' languages develop separately at the morphosyntactic level (e.g. De Houwer, 1990; Meisel, 1989; Paradis and Genesee, 1996).

- Bilingual children's developing morphosyntactic knowledge of one language does not function *as a basis* for speech production in the other language.

Two systems, but…

- **Bilingual children have separate but non-autonomous systems.**

- **Thus, crosslinguistic influence is not unconstrained and it is a principled and systematic phenomenon (Paradis 2001; Paradis and Navarro, 2003).**

- **This has a number of consequences:**
  - Müller (1998) reported that the error types found in English-German bilingual children were *qualitatively* similar to those made by some monolingual German children.
  - However, they differed *quantitatively*: bilinguals produced erroneous word orders in German subordinate clauses much more frequently than their monolingual peers.

Where does the interaction come from?
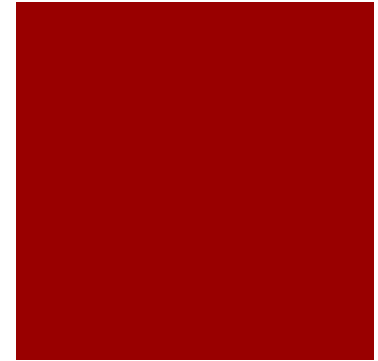
- **Syntactic influence between the two systems is not unconstrained.**

- **The two separate systems will develop independently from each other.**

- **However, bilingual children receive ambiguous input is some cases.**

- **In such cases a *possible* structure in one of the languages will be unduly strengthened because of parallels with the other language: influence occurs.**

An example of interaction between the two systems

- **English: SVO**

The dog ate the sausage in the morning

- **German: V2**

The dog ate the sausage

but also

In the morning ate the dog the sausage

The sausage ate the dog

An example of interaction between the two systems

- Confronted with the German equivalent of *The dog ate the sausage*, an English-German bilingual child might go for the simpler SVO structure (which works for English)

- So, she is expected to make more mistakes in her developing German.

Conclusion

- **The two syntactic systems develop autonomously (e.g. Meisel, 1989; De Houwer, 1990).**

- **However, although the two systems develop separately, there may be some degree of contact between the two languages.**

- **When structures overlap between the two languages they are vulnerable to more misanalyses ("interaction between them").**

Do findings fit with your experience?

- **Phonology**: Some bilingual children make different types of developmental errors compared to monolingual speakers of two languages learned *(Holm, et al, 1996)*.

- **Syntax:** Bilingual children **cannot** be discriminated from monolingual children with Language Impairment on language-based tasks (e.g. competing languages, NWR) (Windsor et al, 2006).

- **Syntax AND Semantics**: Bilingual children show strong associations between lexical (number of different words and different verbs) and grammatical measures within EACH language.

Across the two-languages learned, however, there is no relationship between the two domains (Simon-Cereijido & Gutiérrez-Clellen, 2009)

Identification of gaps in the knowledge base on bilingualism.

- What don't we know?

What clinical research questions are most important?

Issue 3

- **Does the language pair learned affect research findings?**

The Influence of Language Dyads: Evidence from Phonology

Carol Stow

Rochdale PCT

Data sources

- **Mirpuri / Punjabi / Urdu acquired in bilingual context - data from 246 children** (Stow and Pert 2006a, Stow and Pert 2006b)

- **English acquisition by Mirpuri / Punjabi / Urdu bilingual English speakers - data from 35 children** (Holm *et al.* 1999)

Mirpuri / Punjabi / Urdu acquisition in a bilingual context

- **Plosives established before fricatives**

- **Nasals among the first sounds to be established**

- **First sound to be established was a dentalised voiced alveolar plosive. This was elicited in the target word for "milk" supporting the neo-Jakobsonian viewpoint of Ingram (1992) that age of acquisition is influenced by linguistic factors**

Error patterns in Mirpuri / Punjabi / Urdu acquisition in bilingual context

- **Similar processes to those recorded for monolingual English speakers *but***
  - **High incidence (29% between 3;05 – 4;05) of fronting of "sh" ➔ "s"**
  - **Gliding errors observed were "r"➔ "l" in contrast to "r" ➔ "w" pattern typical in both monolingual English speakers and bilingual Pakistani heritage speakers of English**
  - **Intrusive consonants reported in over 25% of children aged 3;06-3;11 and 5;00-5;05**

Error patterns in English acquired by Mirpuri / Punjabi / Urdu speakers

- **All 35 children reduced clusters in English by inserting a schwa between the cluster elements**

- **More than 50% stopped syllable-final nasals**

- **"th" ➜ "t" even when a child could produce "th"**

- **ALL THREE LANGUAGES SHOW SIMILAR ERROR PATTERNS**

Bilingual Children Learning Other Languages

- 'Spanish-English bilingual children will have commensurate, although not identical, phonological skills as compared to age-matched PS and PE children' (Goldstein et al, 2005)

- While bilinguals showed higher error rates than English monolinguals, error patterns were mastered equally well regardless of language exposure. (Gildersleeve-Neumann et al, 2008)

- BUT use of the glottal stop as a final consonant in productions of English words (Gildersleeve-Neumann et al, 2008)

English Error Patterns English +	Maltese	Cantonese	Singaporean-Mandarin
Cluster reduction	✓	✓	✓
Weak syllable deletion	✓	✓	X
Initial/final consonant deletion	✓	X	X
Stopping	✓	X	✓
Fronting	✓	X	X
Lateralisation /r, n/	✓	X	X
Backing	✓	✓	X
Affrication/de-affrication	✓	✓	X
Voicing	✓	X	✓
Reduplication	✓	X	X
Gliding	/l/ /n/	✓	/r/ <-> / l/
Glottal replacement	X	X	✓
Addition	X	✓	X
Assimilation	X	✓	✓

Bilingualism and Phonological Awareness: Language Pair

Barbara Dodd, City University London

# Do Bilingual Children Have Enhanced PA?

- **The Metalinguistic Advantage:**
  - **Bialystok (1986)** *French + English*
  - **Bruck & Genessee (1996)** *French + English*
  - **Campbell & Sais (1995)** *Italian + English*
  - **Rubin & Tumner (1989)** *French + English*

- **European language pairs with alphabetic orthographies**
  - **Eviator & Ibrahim (2000) The metalinguistic advantage is transitory**

Other Language Pairs?

- **No Metalinguistic Advantage**
  - **Jackson et al (1998)** *Cantonese + English*
  - **Bialystok et al (2003)** *Cantonese + English*

- **BUT there may be an effect of order of learning language pairs (Louizou & Stuart, 2003)**
  - *Greek before English: bilinguals = monolinguals*
  - *English before Greek: bilinguals> monolinguals*

Cantonese and Mandarin (and English)
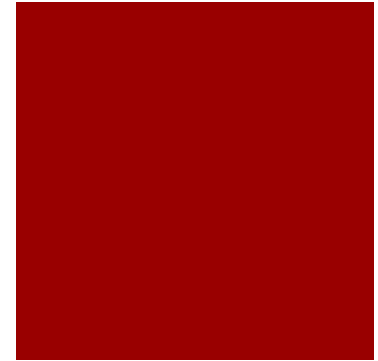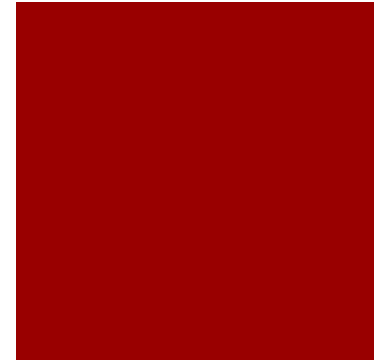
- **Chen et al (2004): enhanced onset-rime awareness for C-M bilinguals vs M monolinguals at 7-8 years**

- **Dodd et al (2008): compared 5 year-old C and M monolingual monolinguals with C-M bilinguals finding:**

- **C-M > C = M**

- **BUT Phoneme Detection: M > C = C-M (Pinyin)**

- **ALSO compared C-M and C-English bilingual groups finding C-M > C-E ONLY for Tone Awareness**

Conclusions

- Research results depend on:
– the language pairs being learned
– the order in which the language are learned
– the education context, particularly *re* orthography

- Why?
– Phonological structure of the language pairs learned
– The salience of particular aspects e.g. syllable in M, clusters in Czech.
– What children are taught about the spunds structure of words e.g., Pinyin; O-R vs Phoneme

Language Dyads: Evidence from Code-switching

Sean Pert

Rochdale PCT

Early Code-switching Models

- **Initially, code-switching was considered to be ill-formed and a random phenomenon (Lance 1975)**

- **Pfaff (1979) challenged the prevailing view that intrasentential codeswitching was 'syntactically random rather than rule-governed behaviour'.**

- **Poplack proposed constraints based on the similarity of the structure of the languages involved**
  - **Free morpheme constraint**
  - **Equivalence constraint**

- **These models studied related languages, e.g. Spanish-English**

- **More recent research of more diverse dyads has challenged the constraints proposed.**

Does the language dyad influence the code-switching output?

- **Verbs are borrowed more frequently than nouns by Panjabi-English speakers**

- **English verbs are inserted using a structure available in Punjabi, where**
  - **a 'noun + doing' phrase is used to incorporate the alien verb**
  - **while maintaining the syntax and grammar of the monolingual Panjabi utterance.**

e.g.   *me apni language learn kerni*

        I want to learn my own language'

                          Romaine (1995)

Loan verb integration hierarchy

- **Moravcsik (1975) and Wichmann & Wohlgemuth (2005) proposed that verb integration followed the pattern:**

- *Light verb strategy < indirect insertion < direct insertion <| paradigm transfer*

- **'…the choice in a given language of one of the four major loan-verb-accommodation patterns cannot be predicted absolutely from structural properties of the languages involved.'**

- **'…if a language has different patterns, these could correlate with the degrees to which speakers of the target language are exposed to the source language(s)'**

Bilingual verbs

- **Muysken (2000) classifies alien verb insertion in a similar manner to Wichmann and Wohlgemuth, but with more categories for the first stage (light verbs).**

- **Languages which are typologically different appear to initially use a light verb strategy.**

- **Muysken (2000) highlights Türker's (1996) study of bilingual Turkish speakers where**
  - **'…the productive foreign verb + *yapmak* [do-INF] pattern in bilingual Turkish**
  - **is matched by a noun + helping verb combination in monolingual Turkish.**

Bilingual verbs

- **This pattern was observed by Romaine and for Urdu-English speakers by Pert and Letts (2003)**

- **In contrast to previous research, Pert and Letts found that bilingual children used the light verb strategy for a wide range of alien English verbs.**

- **Voh <u>point kar rahi he</u>**

 (they point do doing + female is)

- **Pert (2007) found that 78 children aged 3;6 to 7;5 years used 61 different English verbs in a light verb strategy.**

Code-switching over time

- **Patterns of verb integration may change over time.**

- **Gross syntactic phrase / word order may change over time:**

- **For example, Martin *et al.* (2003) studied 50 bilingual Panjabi-English children observing SVO contructions in the typically SOV Punjabi utterances, especially when code-switching was employed.**

  - **Mundaa kick kardaa ball**

    (boy kick do-HE-3PS ball)

Conclusions

- **Different populations show progressive convergence of underlying frame over time.**

- **There is also a change of verb incorporation**

- **The code-switching in languages with similar typology may be different to dyads with contrasting typology (see constraint models)**

- **Matrix language frame models help to describe code-switching,**

- **BUT**

- Only research into language change and code-switching patterns over time can show a particular path for a particular bilingual community.