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INTRODUCTION

- Unique human capacity for language learning
- What about children with diminished language learning capacity—specific language impairment, Down Syndrome?
- What about children with other learning learning challenges?

THE NEED FOR MULTILINGUALISM



"The point is that my daughter has to speak 3, sometimes 4 languages simultaneously....

My concern is:

- How to not overload the child's brain
- How to not cause a delay in her vocabulary development...
- -Should we separate one language from another in terms of a territory or a time of use?
- -Should we all switch to English while helping her to work on her homework?
- Is there a such thing as a right or an optimal way raising a multilingual child?

.... questions, questions, and more questions"



QUESTIONS FROM A FATHER

".... I am a psychologist working in English schools in a very French environment My knowledge of the problematic was leading me to believe that adding yet another language on a child having difficulty mastering his mother tongue could be putting too much pressure and setting the child up for failure."



CONCERNS from a SCHOOL PSYCHOLOGIST

THE ISSUES

A question of fairness

• Ethical issues:

- Should at-risk student be excluded from these benefits?
- Are we prepared to include them?

Pedagogical issues:

- Can we identify at-risk dual language students?
- Are some forms of dual language education more suitable?
- Provision of support services; nature of those services
- Competence of teachers to provide support

MY GOAL

 To review research relevant to the question of young children's capacity to acquire more than one language: ⇒ what children can do

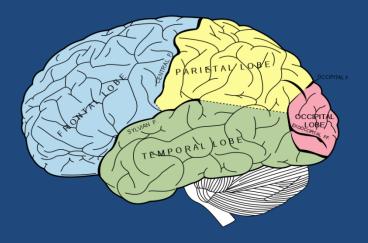
2) Tips on deciding who to include and how to support them

TYPICALLY-DEVELOPING INFANTS & TODDLERS

are neuro-cognitively prepared to learn more than one language

E

are not confused by dual language input

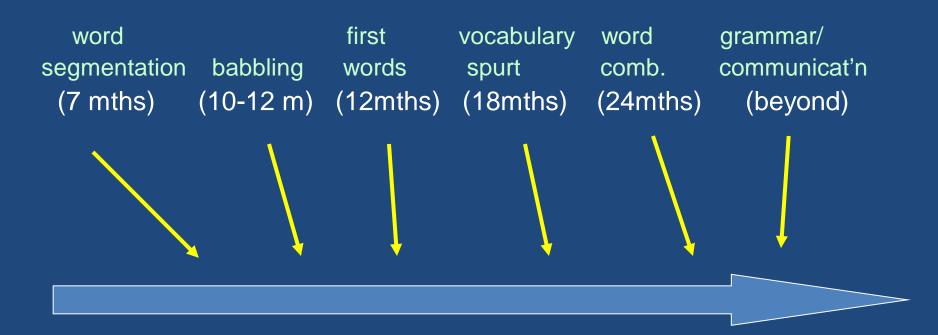


THE EVIDENCE

- They differentiate between their input languages and a foreign language within days of birth
- They prefer to listen to input languages over unfamiliar languages at birth
- They acquire grammars that are specific and appropriate for each language
- They use each language differentially and appropriately with speakers of each language
- They avoid grammatical errors when they code-mix

PRE-SCHOOL BILINGUALS

MONOLINGUAL MILESTONES



MILESTONES FOR BILINGUALS ARE THE SAME

BILINGUAL CHILDREN ARE DIFFERENT FROM MONOLINGUALS

Differences usually reflect:

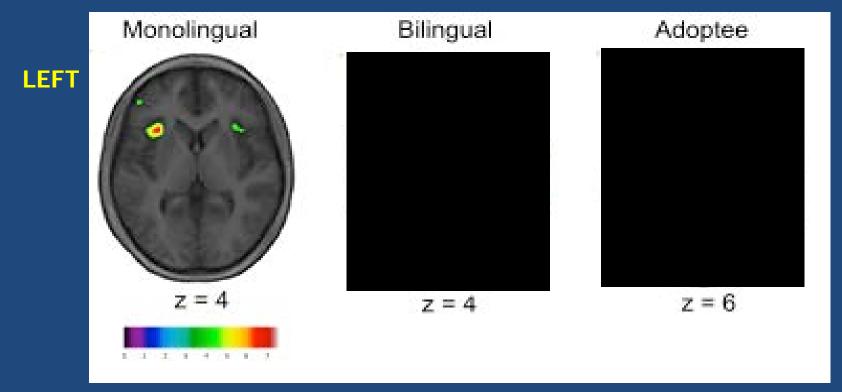
- different learning environments: amount of input, who provides the input, consistency of input
- specific properties of the input languages (similarity in sounds, words, grammar, discourse)
- use of bilingual-specific learning strategies

EVIDENCE OF FLEXIBLE LANGUAGE LEARNING STRATEGIES

- Use facial cues specific to each language to separate the languages
- Use prosodic features of each language to determine word order constraints in each language

 acquire alternate labels for same concepts (violate mutual exclusivity constraint)

NEURO-COGNITIVE PROCESSING of a SECOND LANGUAGE



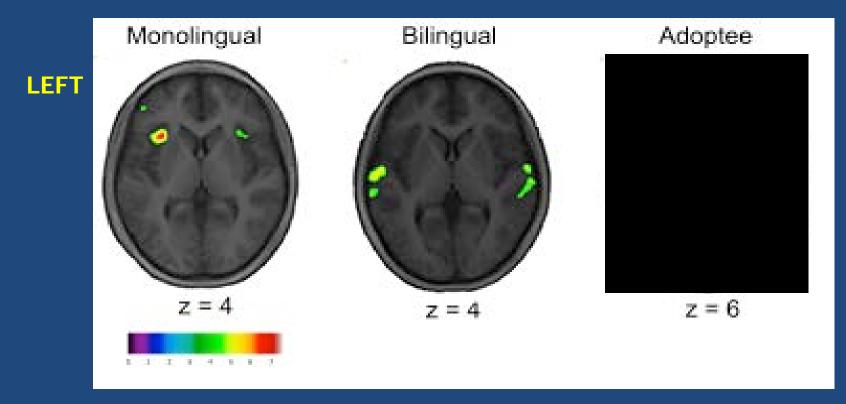
RIGHT

L anterior insula & L frontal operculum= WORKING MEMORY

- a) weak activation L insula
- b) strong activation of temporal regions in both hemispheres

same pattern as bilinguals

NEURO-COGNITIVE PROCESSING of a SECOND LANGUAGE



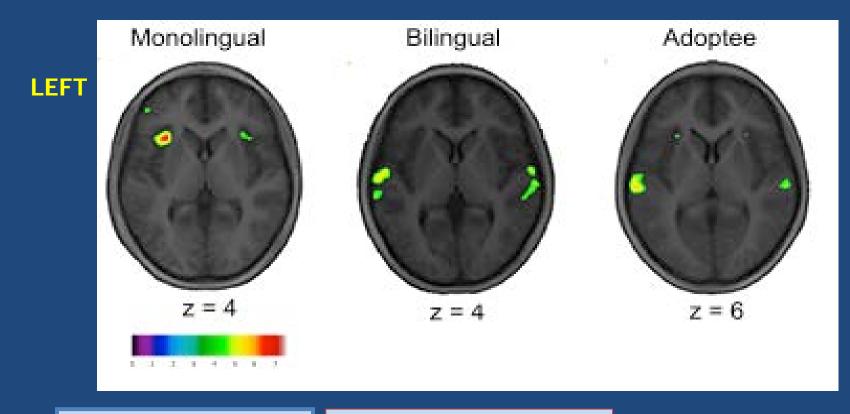
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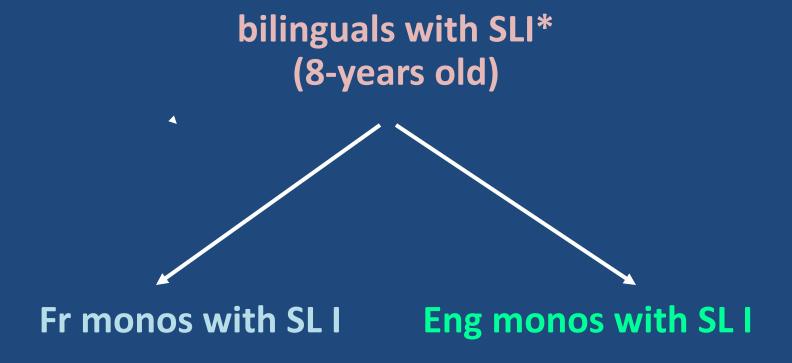
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CHILDREN with DEVELOPMENTAL DISORDERS

- Specific language impairment
- Down Syndrome
- Autism Spectrum Disorder

FRENCH-ENGLISH BILINGUALS with SPECIFIC LANGUAGE IMPAIRMENT (SLI)

Paradis, Crago, Genesee & Rice (2003)



RESULTS

a) Severity of impairment:

bilingual children = monolingual children (in English & French)

b) Patterns of impairment:

bilingual children = monolingual children (in English & French)

SPANISH-ENGLISH CHILDREN WITH LANGUAGE IMPAIRMENT

(Gutierrez-Clellen & Wagner, 2006)

BILINGUAL CHILDREN

typicallydeveloping (Eng. Dominant) typicallydeveloping (Sp. Dominant) impaired development (Eng. Dominant)

NO

DIFF

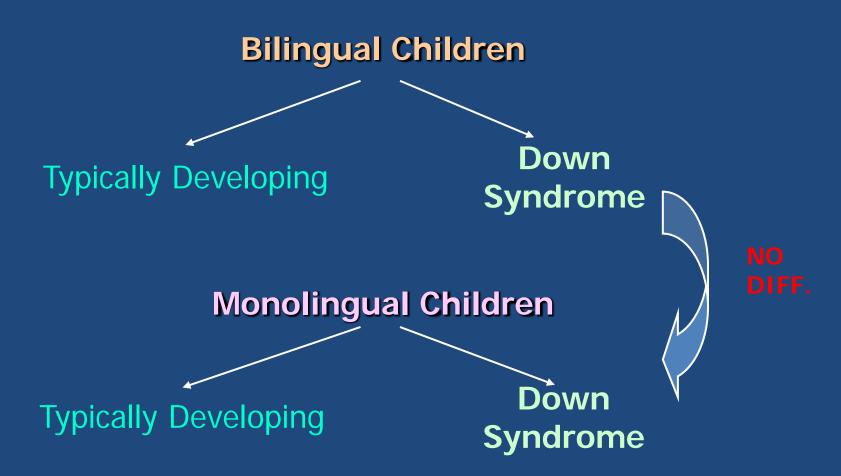
ENGLISH-L1 CHILDREN

Mono
TypicallyDeveloping

Mono impaired development

CHILDREN WITH DOWN SYNDROME

(Kay-Raining Bird, Cleave, Trudeau, Thordardottir, Sutton, & Thorpe, 2005)



CHILDREN WITH AUTISM SPECTRUM DISORDER

Marinova-Todd, S.H., & Mirenda, P. (in press).

Language and communication abilities of bilingual children with ASD.

In J. Patterson & B. L. Rodriguez (Eds.), Multilingual perspectives on child language disorders. Bristol, UK: Multilingual Matters.

bilingual children with ASD = mono children with ASD

CAVEAT!

ALL CHILDREN ARE DIFFERENT

EACH CHILD SHOULD BE CONSIDERED INDIVIDUALLY

AT-RISK LEARNERS IN SCHOOL

- o low socio-economic status
- o low academic ability
- o poor L1 abilities
- o minority ethnic group
- special education students (SPED)

AT-RISK AT-RISK dual language students = monolingual students

IDENTIFYING STUDENTS FOR INCLUSION IN DUAL LANGUAGE PROGRAM

- Assume that students with challenges we have discussed can benefit from participation in a dual language program.
- If a learner has a learning challenge that has not been examined systematically in research, extra care must be taken to determine whether he/she will benefit from dual language instruction.
- In all cases, the following issues should be considered prior to the learner's admission to the program and should be considered when making a decision to admit or not:

ISSUES TO CONSIDER

LANGUAGE HISTORY LEARNER'S NEEDS

OTHER FACTORS

INTENSITY of CHALLENGES

SCHOOL RESOURCES

PARENT'S ROLE

SUPPORT TIPS - 1

- 1) differentiate-differentiate-differentiate according to specific individual needs
- 2) profile student's needs ASAP
- 3) use Rtl approach to monitor progress
- 4) meaningful, engaging & focused instruction
- 5) teach perseverance

SUPPORT TIPS - 2

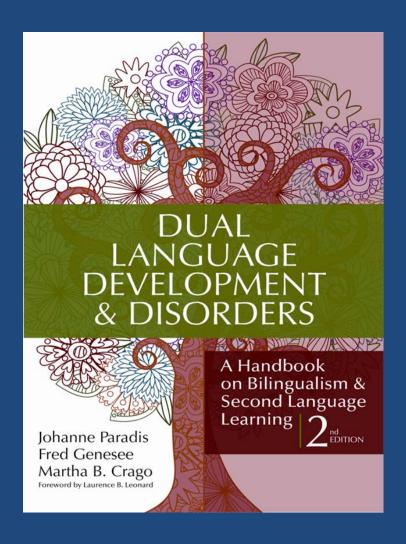
- 6) start with general instructional strategies & assume that monolingual strategies will benefit at-risk learners
- 7) modify support to reflect students' L2 and cultural backgrounds (and their specific learning needs)
- 8) greater need requires more intensive and extended support

SUPPORT TIPS - 3

- 9) language-related impairments occur in both languages; support both languages; focus on common features and teach differences explicitly
- 10) draw on strengths in L1 to support L2 development, and vice versa
- 11) engage and train parents to support their children, where necessary

thank you

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ADDITIONAL READINGS

- Fortune, T.W. (with M.R. Menke). (2010). *Struggling learners and language immersion education*. Minneapolis, MN: Center for Advanced Studies on Language Acquisition.
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- Hambly, C., & Fombonne, E. (2012). The impact of bilingual environments on language development in children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 42, 1342-1352.
- Paradis, J., Genesee, F., & Crago, M. (2011). Dual Language Development and Disorders: A Handbook on Bilingualism and Second Language Learning (2nd Edit.). Baltimore, MD: Brookes.
- Raining Bird, E., Genesee, F., & Verhoeven, L. (2016). Bilingualism in children with developmental disorders. *Journal of Communication Disorders*. *3:* 1-14.₃₁