

DUAL LANGUAGE DEVELOPMENT in PRESCHOOL CHILDREN: THE CAPACITY ISSUE



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MY GOAL

- To review research relevant to the question of young children's capacity to acquire more than one language:
 - ⇒ what children can do
- Focus on acquisition in non-school settings
 - 1) Typically-developing children: 0-5 YEARS OF AGE
 - research on early pre-verbal and verbal development
 - 2) Children with developmental disorders (0-5 and older)
 - children with specific language impairment (SLI)
 - Down Syndrome (DS)
 - Autism Spectrum Disorder (ASD)

1) TYPICALLY-DEVELOPING NEWBORNS are neuro-cognitively prepared to learn more than one language

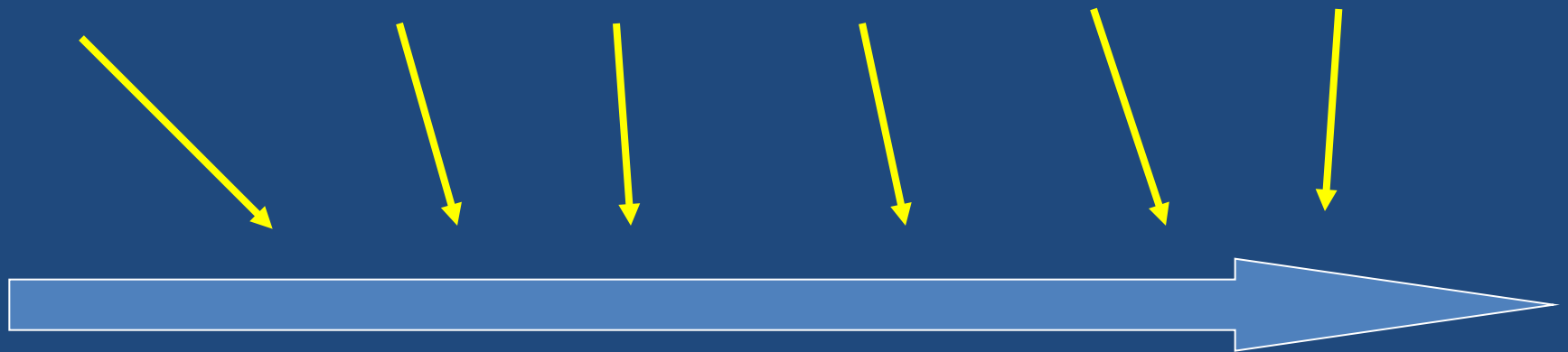
Evidence:

- Early language differentiation & preferences
- Early speech perception
- Early word segmentation
- Early word learning strategies
- Grammatical development

PRE-SCHOOL BILINGUALS

MONOLINGUAL MILESTONES

word segmentation (7 mths)	babbling (10-12 m)	first words (12mths)	vocabulary spurt (18mths)	word comb. (24mths)	grammar/ communicat'n (beyond)
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MILESTONES FOR BILINGUALS ARE THE SAME

2) SAME GENERAL LEARNING STRATEGIES AS MONOLINGUALS + FLEXIBILITY

EVIDENCE OF FLEXIBLE USE OF 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
- acquire alternate labels for same concepts (violate mutual exclusivity constraint)

3) YOUNG BILINGUALS ARE **NOT** CONFUSED BY DUAL LANGUAGE INPUT

- They differentiate between their input languages and a foreign language within days of birth
- They prefer to listen to input languages over unfamiliar languages
- 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

4) COMPETENCE OF YOUNG BILINGUALS MUST CONSIDER BOTH LANGUAGES

- Young bilingual children often lag monolingual children if only one language is examined; the dominant language is a better indicator of competence than the non-dominant language
- competence is often the same or better if both languages are assessed (vocabulary, grammar, discourse skills)
- Current proficiency in each language depends on current exposure – that is, child's strengths and weaknesses in each language depends on exposure to each language

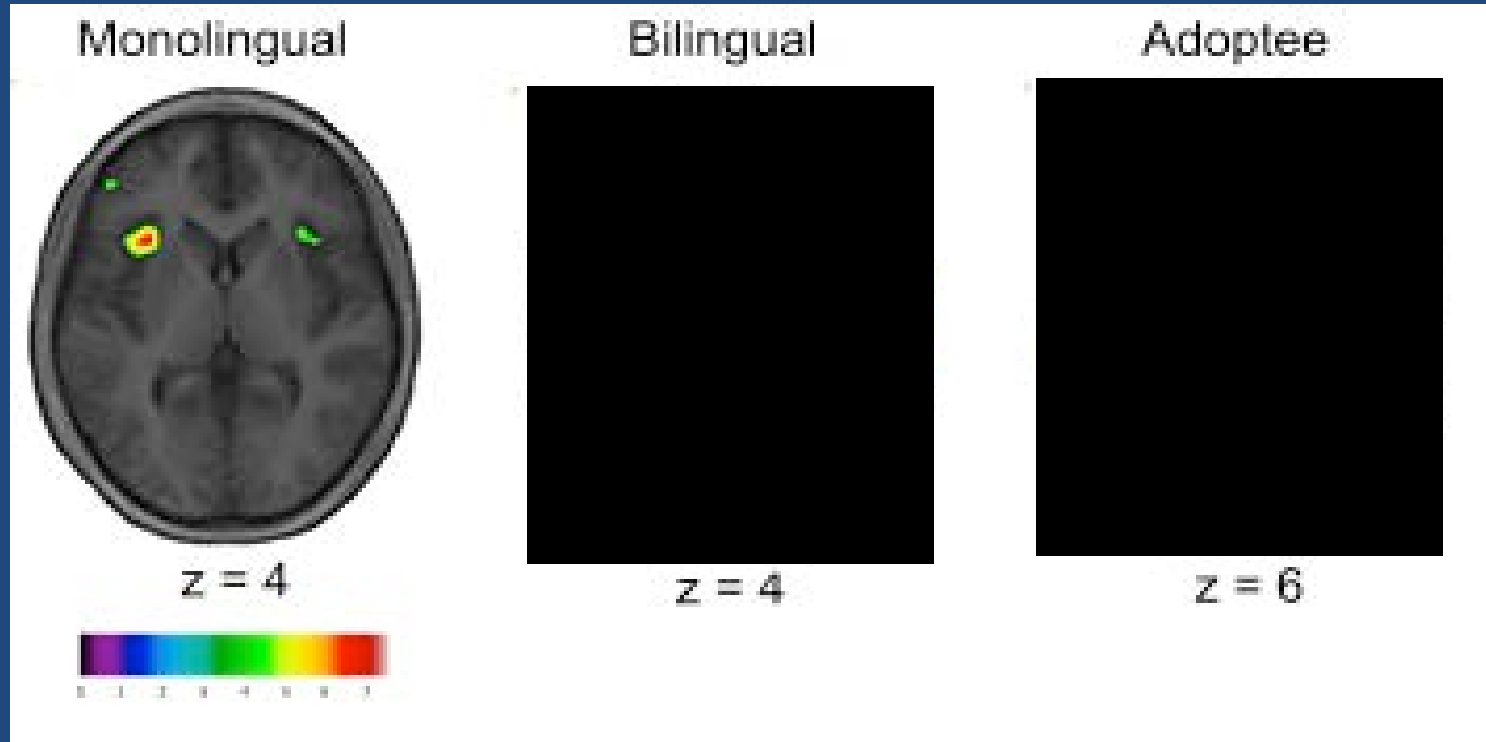
5) BILINGUAL CHILDREN ARE DIFFERENT FROM MONOLINGUALS

Differences may 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

NEURO-COGNITIVE PROCESSING of a SECOND LANGUAGE

LEFT



RIGHT

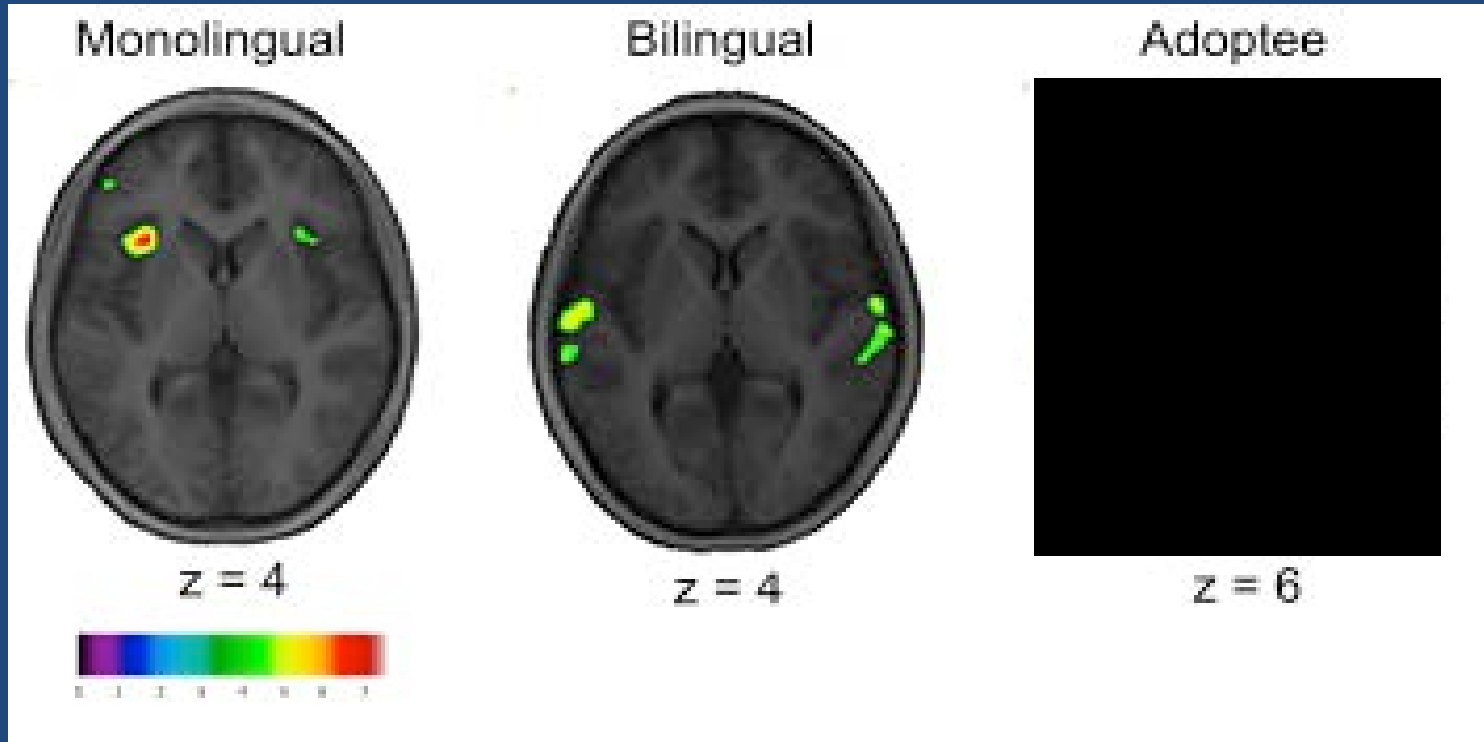
L anterior insula &
L frontal operculum=
WORKING MEMORY

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

same pattern as
bilinguals

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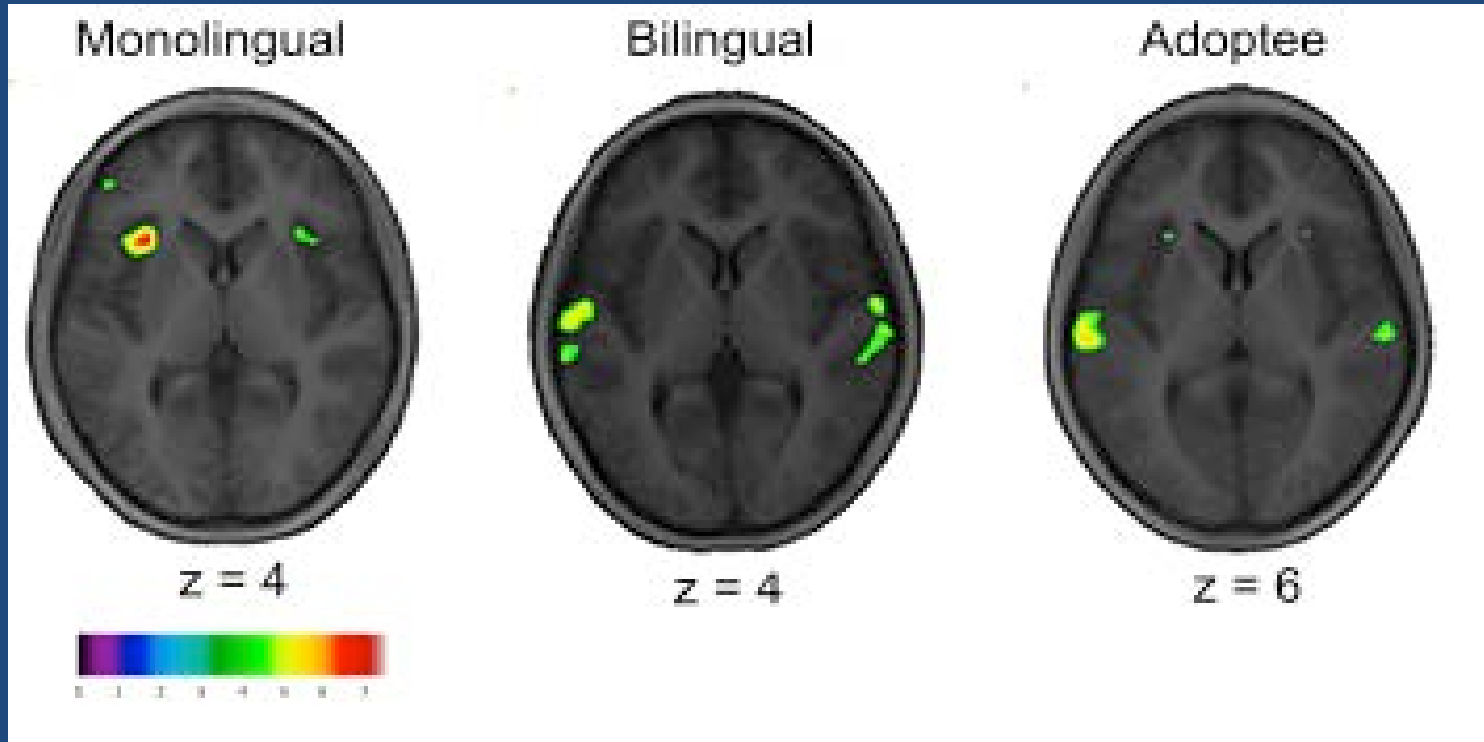
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AT-RISK LEARNERS

Commonsense view:

learning an L2 is a burden for at-risk learners and jeopardizes language development

Alternative view:

children with language learning difficulties will have the same difficulties whether they learn 2 languages or only 1

At-Risk Language Learners

- Specific language impairment
- Down Syndrome
- Autism Spectrum Disorder

Kay-Raining Bird, Genesee & Verhoeven (in press, Journal of Communication Disorders)

- 1) All groups exhibited the same kind and pattern of difficulties in comparison to typically-developing (TD) children
⇒ **NO unique effects**
- 2) simultaneous bilinguals in all groups: **BIL =/> MONO**
- 3) successive bilinguals in all groups: **BIL* =/> MONO**
* if tested in dominant language or both
- 4) L2 of at-risk groups: **BIL < MONO** (sometimes) *
* L2 was often weaker language; but reports provide insufficient information

FRENCH-ENGLISH BILINGUALS with SPECIFIC LANGUAGE IMPAIRMENT (SLI)

Paradis, Crago, Genesee & Rice (2003)

bilinguals with SLI*
(8-years old)

Fr monos with SLI

Eng monos with SLI

RESULTS

a) Severity of impairment:

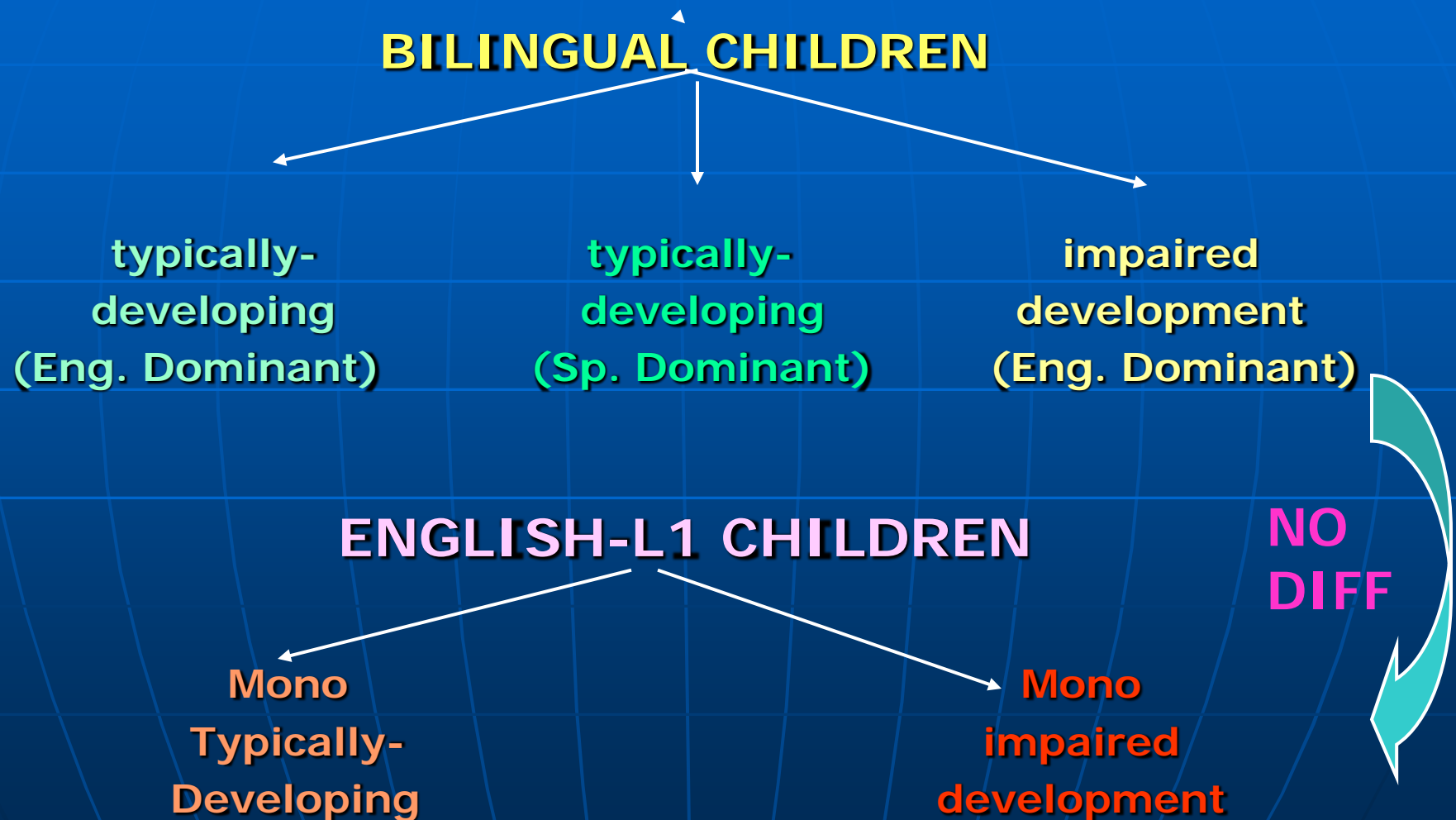
bilingual children = monolingual children
(in English & French)

b) Patterns of impairment:

bilingual children = monolingual children
(in English & French)

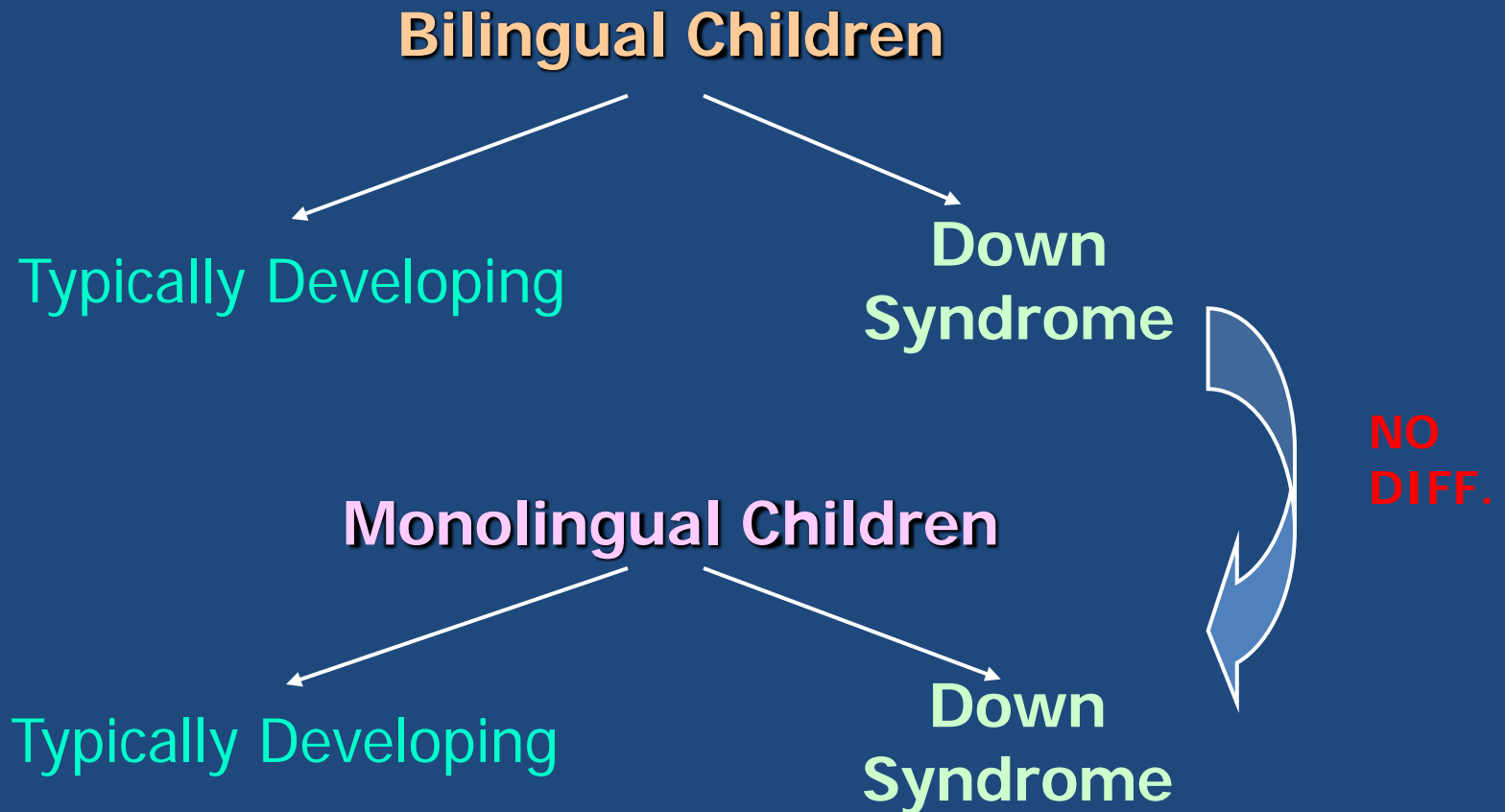
SPANISH-ENGLISH CHILDREN WITH LANGUAGE IMPAIRMENT

(Gutierrez-Clellen & Wagner, 2006)



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

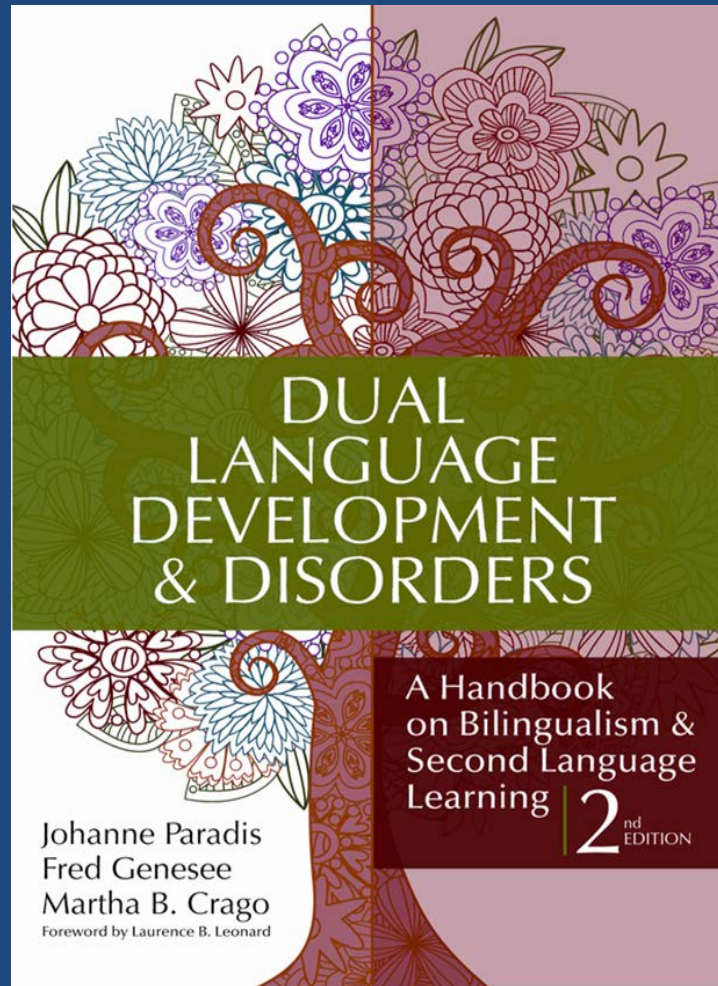


IMPLICATIONS

⇒ children with DD have the capacity to learn two languages and should be given the opportunity to do so, IF other conditions are favorable:

- **Language environment:** Is there sufficient access to both languages?
- **Community:** What is the use of or need for L2?
- **Family:** What is the significance of L2 in the nuclear and extended family?
- **School:** Can the school provide the additional support child needs?
- **Parents:** Do parents have the resources, energy & patience?
- **Individual differences :** Does the child have predisposition to cope with their additional learning challenges?





thank you

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