

Challenges of cognitive assessment in children with neurodevelopmental conditions

Isabelle Soulières, Ph.D.  
Professor, Psychology Department, Université du Québec à Montréal  
Researcher, Hôpital Rivière-des-Prairies



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What are the characteristic strengths and weaknesses of autistic individuals?

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A different cognition

- ▶ Cognitive development in autistic children differs in terms of perception, language, memory, etc.



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### Intellectual evaluation

What does bicycle mean?  
Vocabulary

Picture concepts

Blocks

What do red and blue have in common?  
Similarities

Matrices

Repeat 4-8-3-6-2  
Digit span

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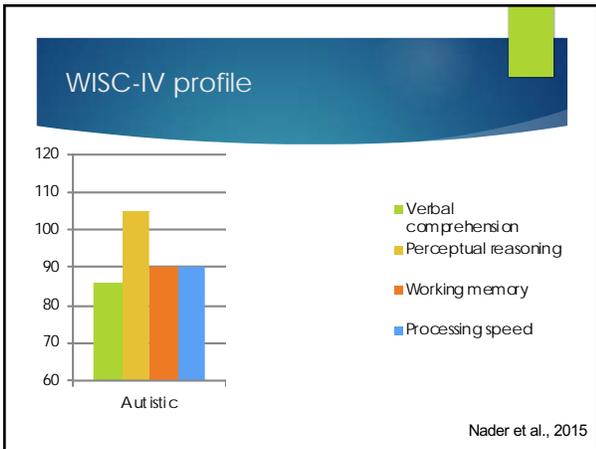
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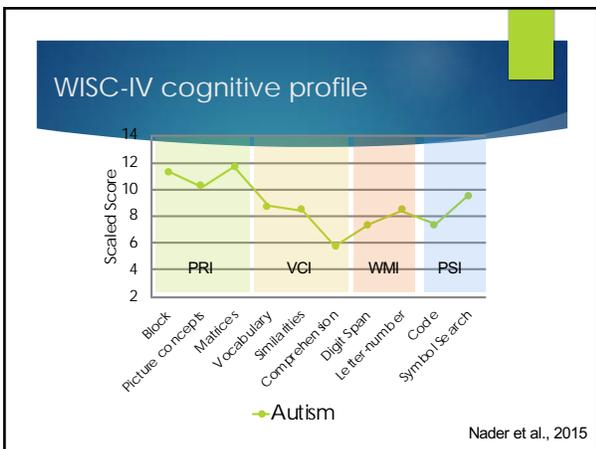
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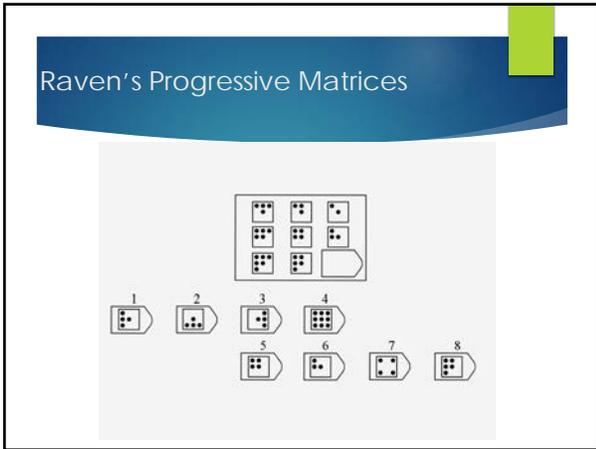
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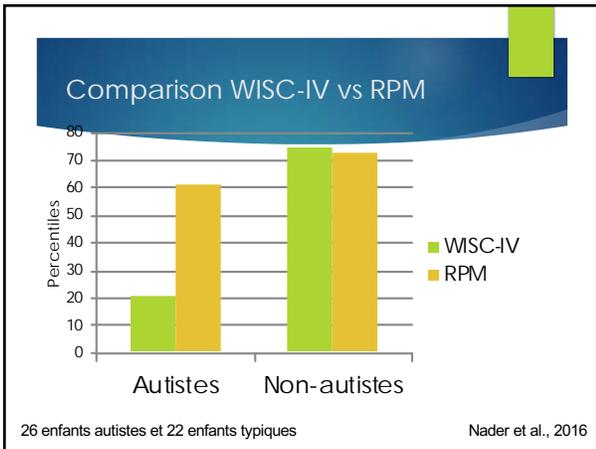
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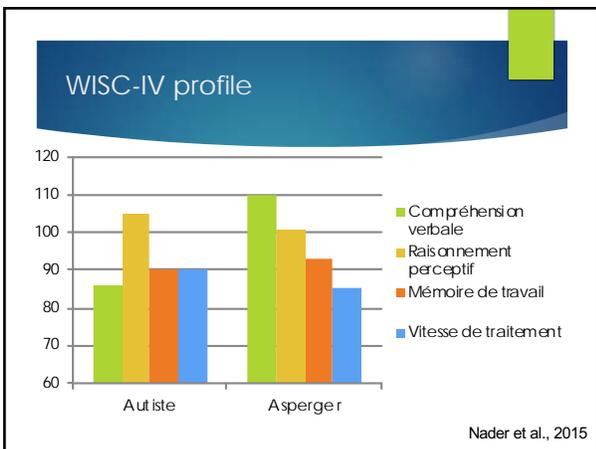
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## About strengths and weaknesses

- ▶ Perceptual and cognitive development is atypical
- ▶ Some strengths in the manipulation of perceptual material are characteristic of autism
  - ▶ Is it seen also in non verbal autistic children?
- ▶ For a subgroup, strengths in the manipulation of verbal material

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## And in non verbal autistic children?

HOW TO EVALUATE THESE CHILDREN AND DETECT THEIR ABILITIES?

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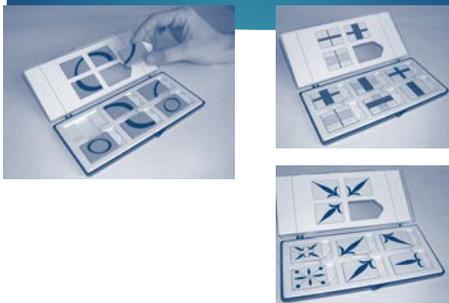
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## RPM board form



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Visual search

S	X	X	T	X	T
X	T	X	S	X	S
S	T	X	T	X	S
X	T	X	S	S	T

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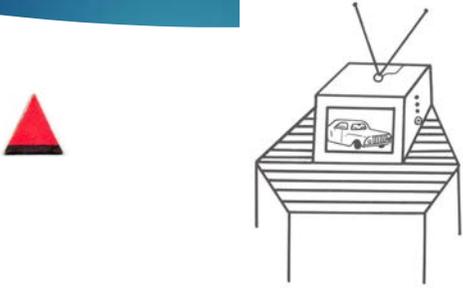
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Children Embedded Figures Test



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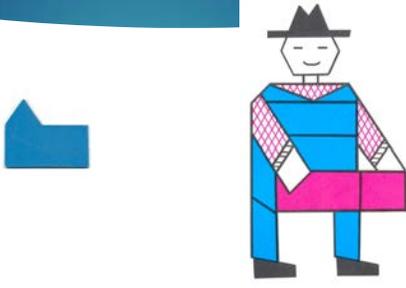
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Children Embedded Figures Test



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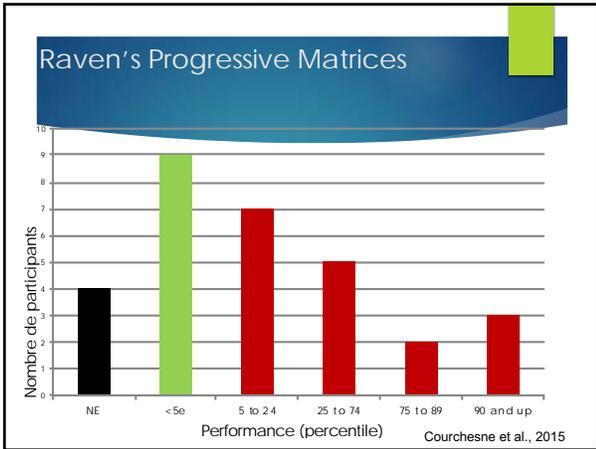
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### Reasoning in minimally verbal autistic children

- ▶ Reasoning abilities are intact in some non-verbal or minimally verbal autistic children
  - ▶ Good abilities in perception can be observed
  - ▶ Correlation between performance in reasoning and in perception in autistic children
- ▶ Their intellectual potential is underestimated
- ▶ A standard evaluation would probably not have highlighted these abilities

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### A different cognitive profile

- ▶ Non homogeneous cognitive profile
  - ▶ Big gaps between the subtests within a test of intelligence, and across tests
- ▶ Different profiles according to clinical phenotypes
  - ▶ Distinct profiles in autistic versus Asperger children
- ▶ Profile in non verbal autistic children
  - ▶ Gaps between subtests and between tests

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# Testability versus cognitive abilities

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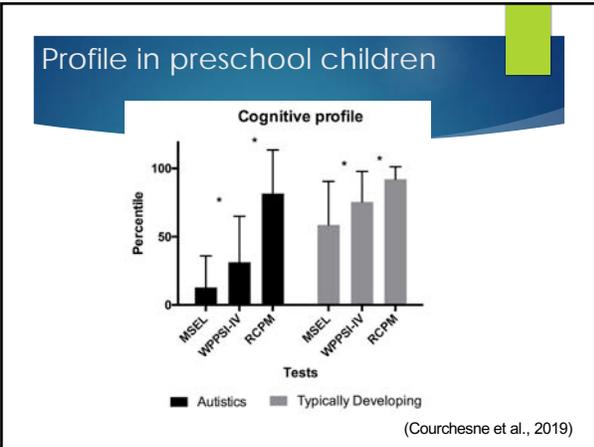
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- ### A few challenges of cognitive evaluation
- ▶ At what age should we evaluate children? Wait? Reevaluate?
  - ▶ Which tools should we use?
  - ▶ Should we adapt evaluation situations? Why and when?
  - ▶ A rich evaluation can guide strengths-based interventions in children

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