

Pervasive Developmental Disorders (PDD) Autism Spectrum Disorder(ASD)

Classification CIM 10/DSM-IV

Troubles Envahissants du Développement

Autisme infantile

Autisme atypique

Syndrome de Rett

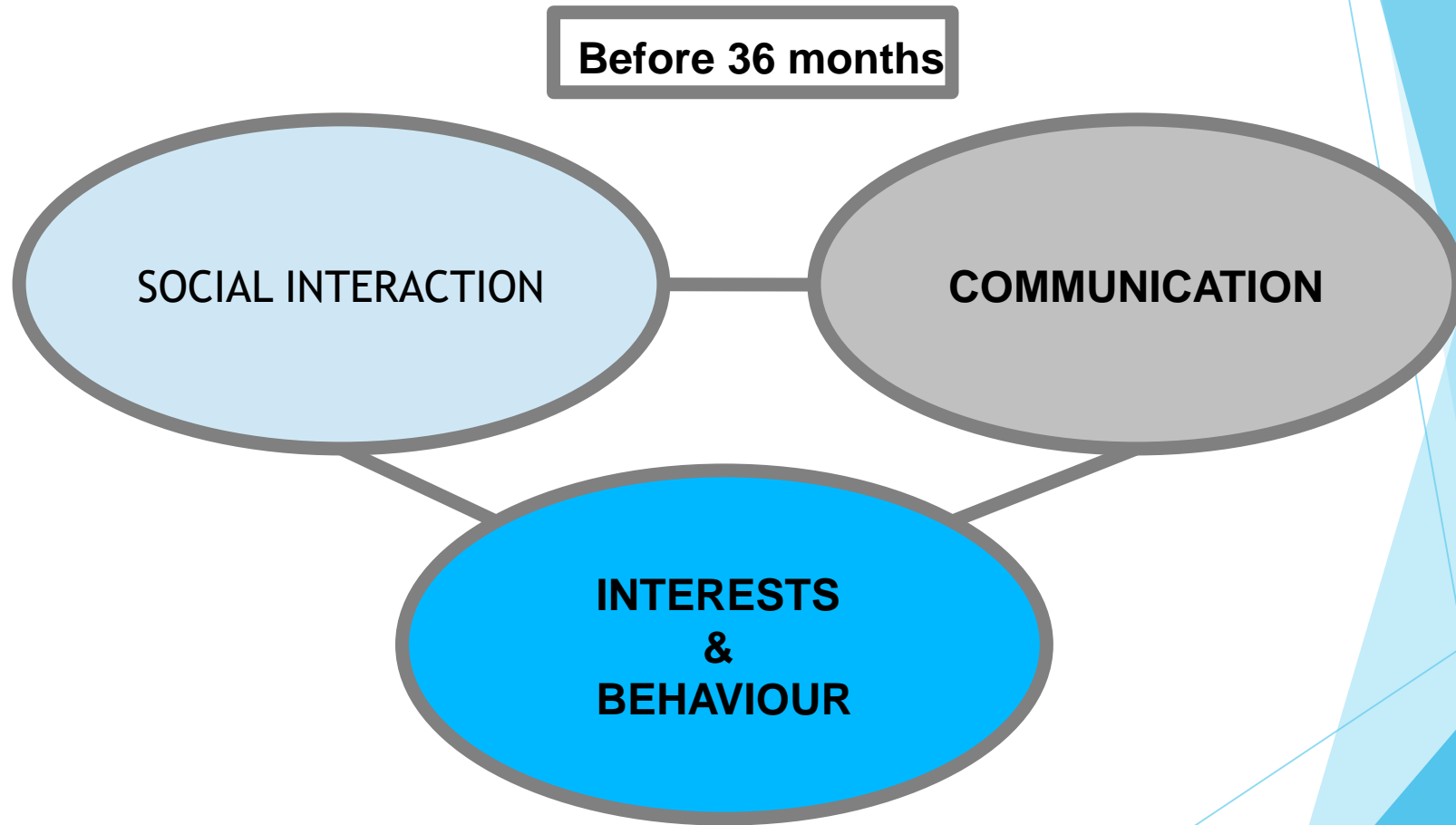
Autres troubles désintégratifs de l'enfance

Hyperactivité associée à un retard mental et à des mouvements stéréotypés

Syndrome d'Asperger

Autres TED / TED-NS

Autism Syndrom Tripod



SOCIAL INTERACTION

- A marked alteration in the use of non verbal behaviour to regulate interactions.
- Incapacity to establish relationships with peers at the same level of development
- A lack of socio-emotional reciprocity
- Doesn't spontaneously share interests, pleasures or successes.

COMMUNICATION

- Absence or delayed oral language.
- Incapable of engaging in or maintaining a conversation.
- A stereotypical or repetitive use of idiosyncratic language
- No spontaneous and varied pretend play

INTERESTS & BEHAVIOUR

- Restricted and stereotypical centres of interest
- Use of specific, repetitive and non functional rituals
- Repetitive movements and motor mannerisms
- Preoccupied by the small parts of objects

The ASD in DSM 5

- ▶ A single term encompasses all disorders Autism Spectrum Disorder
- ▶ ASD =Concept to emphasize:
 - ❖ The great variability of individual symptoms
 - ❖ The specificity of social development disorders

The ASD in DSM 5

- The clinical diad replaces the clinical triad :
Alteration of social communication (social interactions + communication)
- Restricted, repetitive and stereotyped character of behavior, interests and activities
Delay or abnormal functioning observed before 3 years
- Level of severity defined according to the intensity of the support necessary for the person for its autonomy

The Sensory characteristics

- ▶ In the new classifications(DSM5), takes the place of a symptom:
- ▶ Different perception of environmental stimulation
- ▶ Hypo-reactivity / non-discriminating treatment
- ▶ Hyper-reactivity / irritability
- ▶ Difficulty combining several senses at the same time
- ▶ Inter-modal transfers

ASSOCIATED DISORDER ASSESSMENT

- Mental retardation: 70% of the cases, variable degree.
- Anxiety and fear and massive phobias: 80% of the cases
- Deficit disorder of the attention: 2/3
- Motor disturbance
- Epilepsy (20%) hearing impairment (11%) visual impairment:
strong (3.7%) moderate (19.3%)
- Self injury
- performance islands

Epidemiological data

- ▶ **Frequency - incidence**
 - - 2009 (less than 20 years old)
 - ✓ All PDDs: 6 - 7 out of 1000
 - ✓ Child autism: 2 out of 1000
 - ✓ PDD with mental retardation : 2 or 3 out of 1000
- ▶ -Increase in frequency
 - Modification of the criteria for diagnosis
 - Improvement in professionals identifying the disorder
 - Development of specialised services

Risk factors

- ASD present in all CSPs
- Sex ratio for child autism
- 4 times more frequent in boys than in girls
- less high when backwardness is moderate to severe (2 boys for 1 girl)
- less risk of child autism depending on the age of the parents (the risk is multiplied by 1,3 when the mother is over 35 years old ; a risk of 1,4 when the father is over 40 years old)
- pre and perinatal history is more important for ASD than for the general population
- Risk for siblings :
 - for a child born to a family who already has a ASD child : 4% if the affected child is a boy and 7% if the affected child is a girl
 - higher for a family that already has 2 children with ASD (25%-30%)

Associated Pathologies

- problems sleeping : for 45% - 86% of children with autism
- psychiatric problems : 50% -75%
 - difficult to detect in people with ASD or mental retardation (MR)
 - Adults with PDD-and MR: anxiety and depression (more frequent)
 - Children : The overdrawn disorder of the attention/hyperactivity (more frequent)
- -Possibility of a psychiatric pathology (delirium or spates of delirium ; schizophrenia) need further research
 - Epilepsy : between 5% -40%
 - risk higher for women when MR
 - frequency: first peak pre school ; second peak during adolescence
 - RM- prevalence varies according to type of ASD
 - no MR in Asperger syndrome
 - in child autism : 70%

A particular cognitive-sensory functioning

Cognitive features of PDD

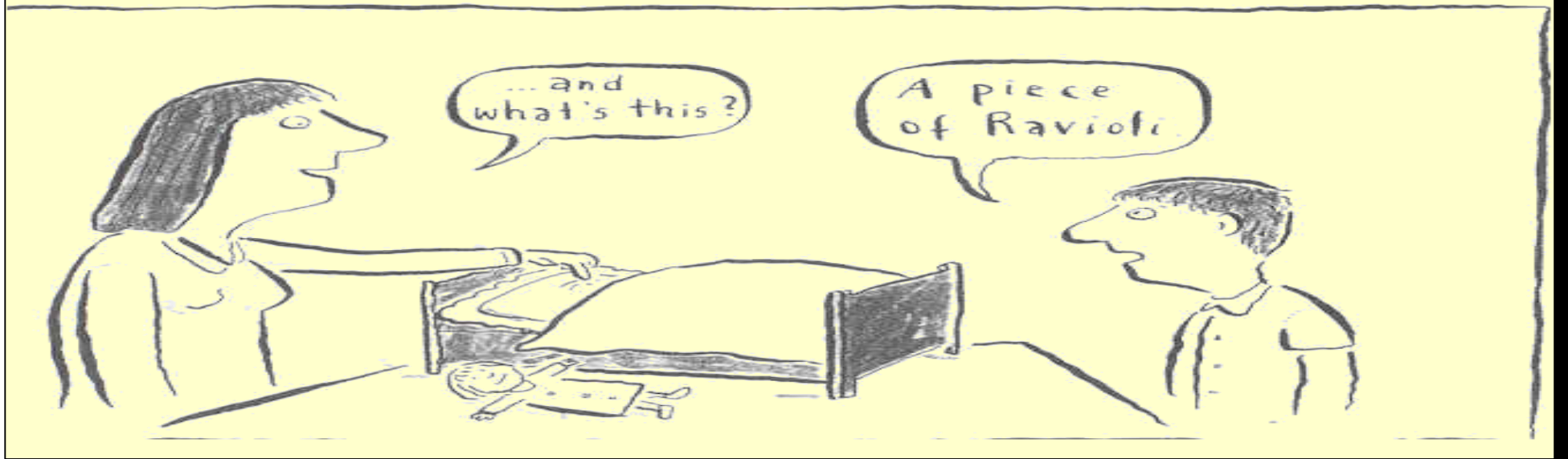
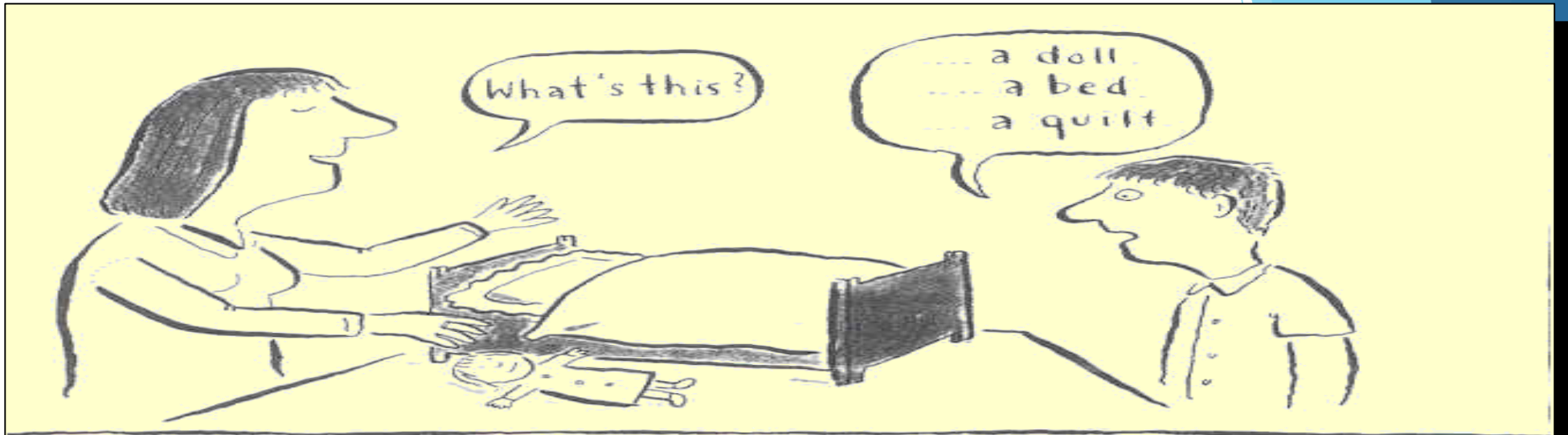
- Cognitivist approach
 - a central unity : the brain
 - applications : the cognitive functions
 - periphery : the 5 senses
 - data: the perceptions

The strength of central coherence

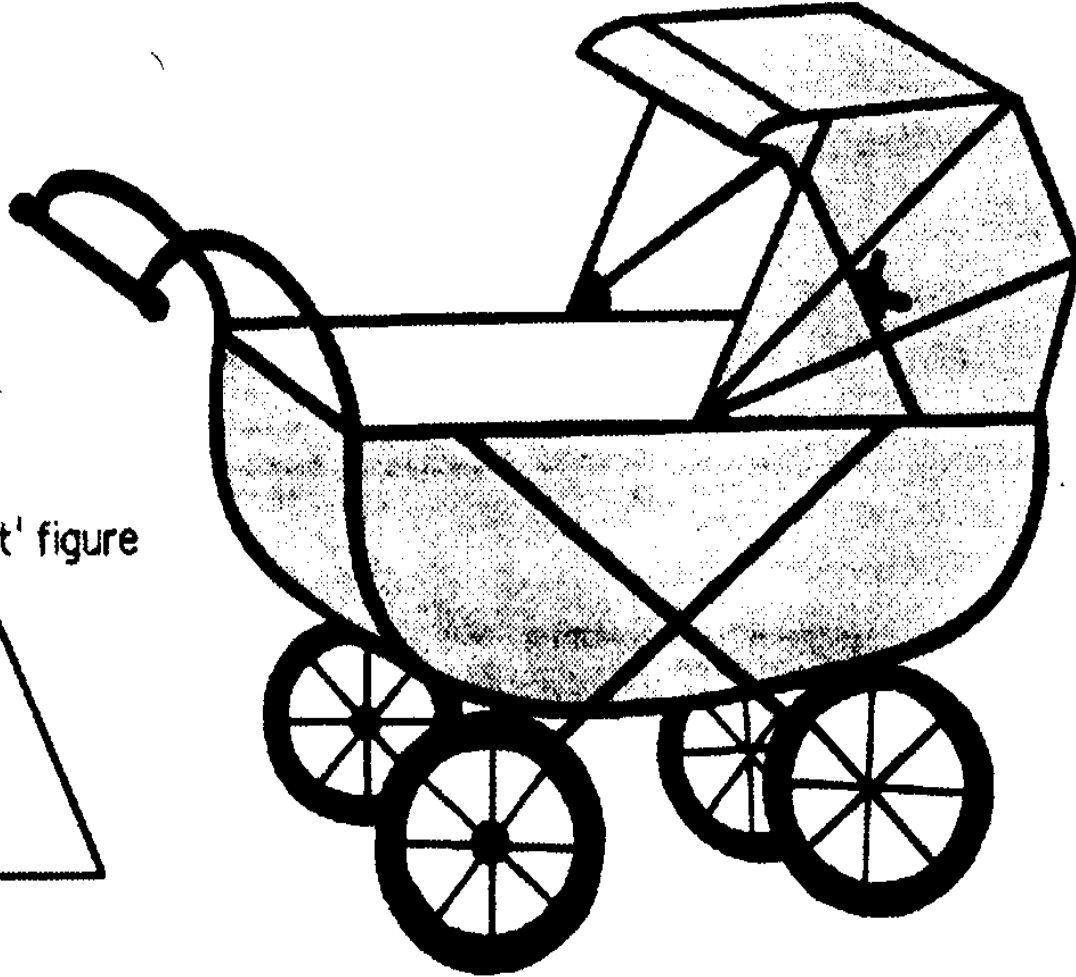
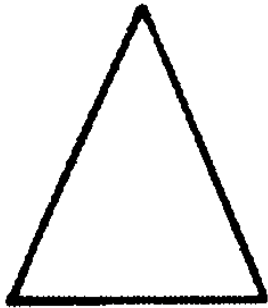
- an innate capacity to organise perceptions and information, to find a structure in them to treat on a hierarchical basis them according to the context
 - the brain of a person with ASD doesn't use its associated neurons to filter, sort and, most importantly, prioritizing information
 - CONSEQUENCES : cognitive characteristics
 - Neurotypical people : the context gives meaning to things
 - People with ASD live in a « multiverse » = a world made of many details that have no relation to each other and have no single meaning = their literal meaning

« Autistic people notice each leaf on a tree without being able to see the whole tree »
(N. Minshew)

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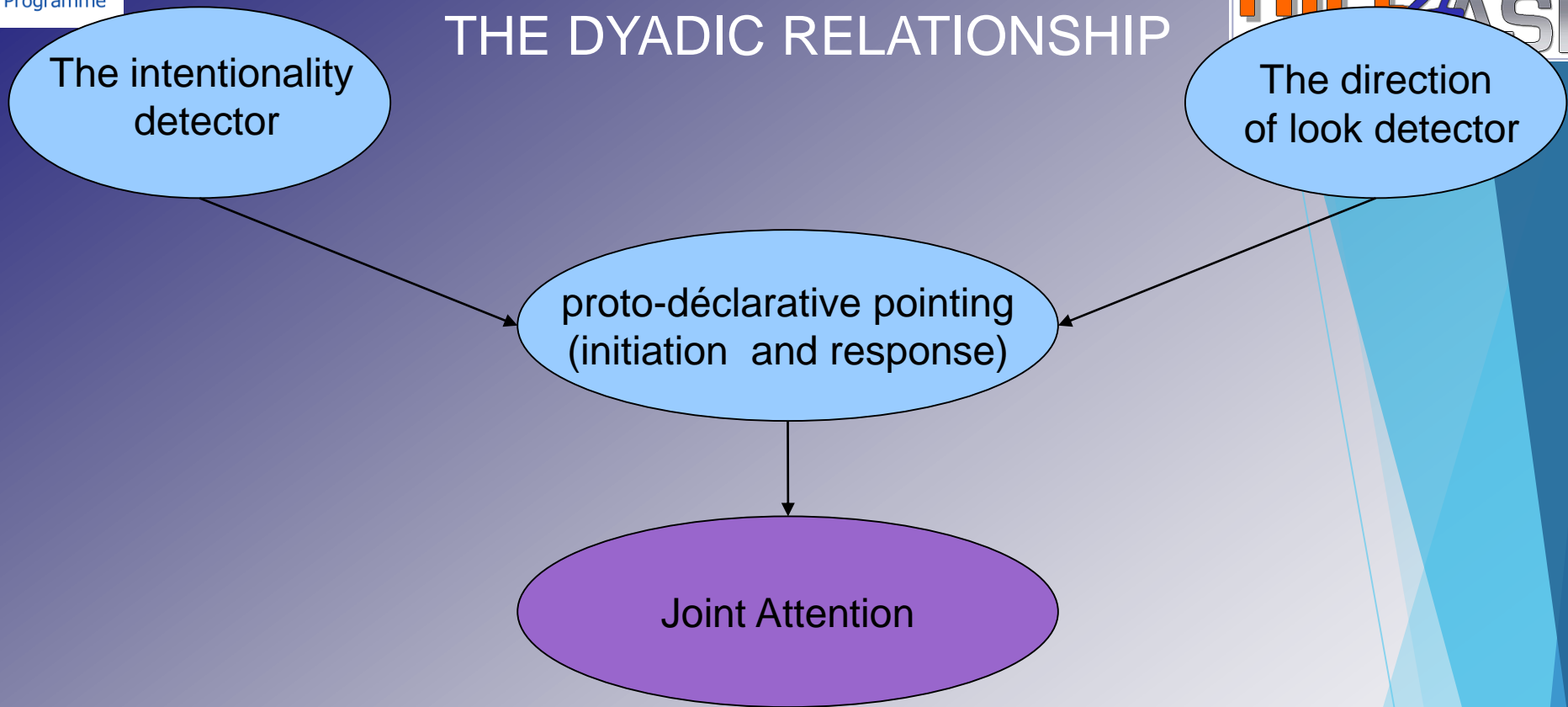
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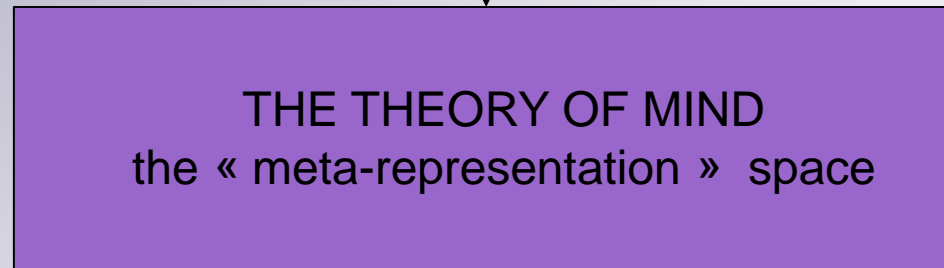
The Theory of Mind (TM)

- TM : an essential cognitive function allowing a way of imagining the thoughts and feelings of others
- ASD : major difficulties in even the possibility of there being a difference between mental representations of a person, their believes and those of others
- Therefore, almost impossible to
 - derive logical conclusions and deductions
 - predict behaviour in others

THE DYADIC RELATIONSHIP



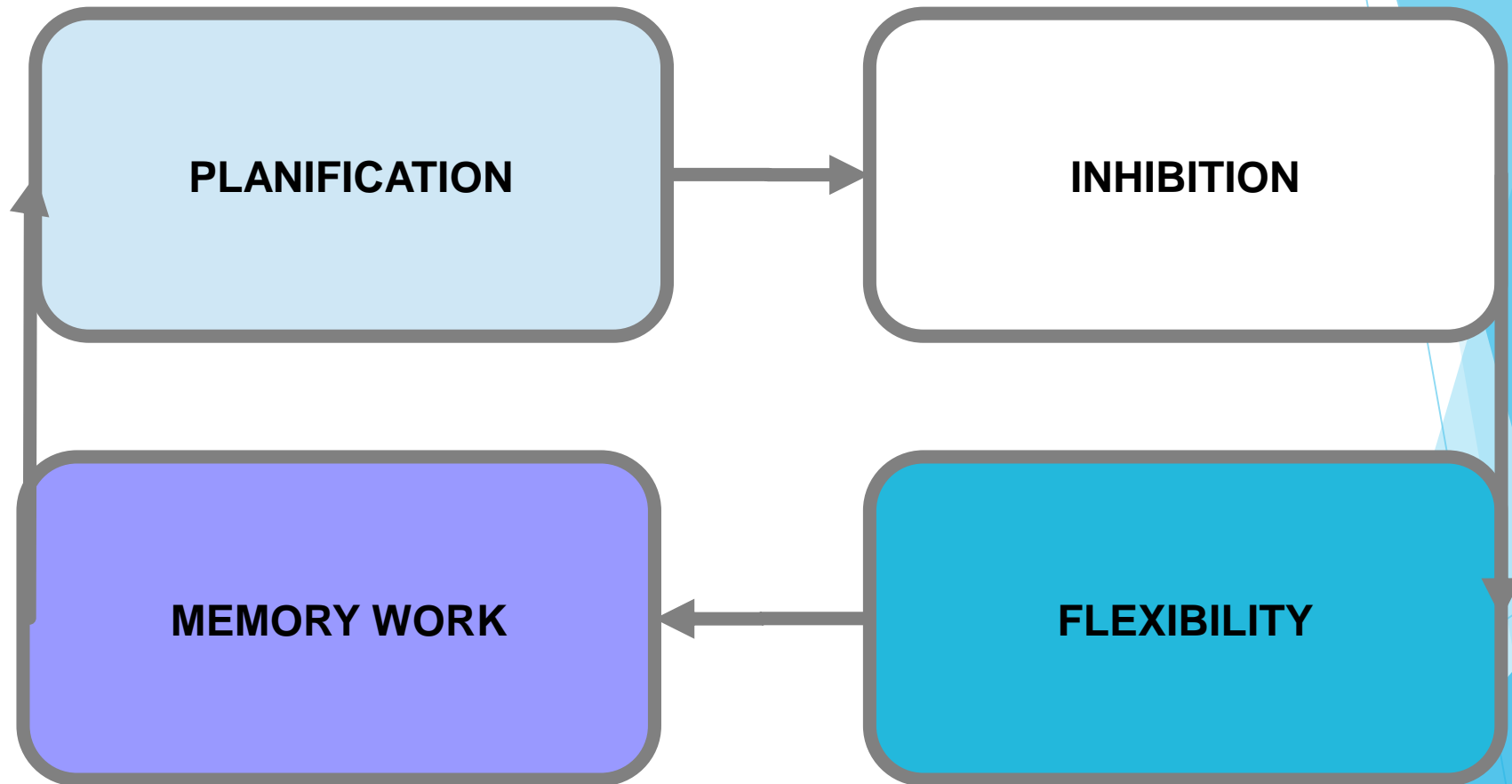
TRYIADIC RELATIONSHIP



The executive functions

- All the mental processes that are involved in resolving problems.
 - are mainly found in the frontal lobe
 - are considered as the highest level of functioning in human behaviour
- NB / a disorder in executive functions is not specific to ASD

The executive functions



The perceptive function

- the idea that people with PDD see in a different grain
- Conséquences :
 - Great capacity of discrimination
 - attention is attracted towards the local and physical aspects of information (details) to the detriment of its global aspects
 - over-functioning of one sense to the detriment of others
 - Difficulty in combining several senses
 - Phenomenon of sensory irritation

The sensory characteristics

Study of Geneva, 1994 shows that people with EDD have sensory characteristics (hypo or hyper):

- ▶ 87% at the auditory level
- ▶ 81% at the visual level
- ▶ 70% at the tactile level
- ▶ 30% at the taste level
- ▶ 53% at the olfactory level

The sensory characteristics

We know the 5 senses well:

- ▶ Hearing System
- ▶ Olfactory system
- ▶ Taste system
- ▶ Visual System
- ▶ Touch system

But we often forget :

- Proprioceptive system
- Vestibular System

The sensory characteristics

- The proprioceptive system:
 - Deep sensitivity, joint and muscle sensation
 - Gives an awareness of the position of the body and the relationships between the different parts of the body
 - Indicates strength and muscle size required for movement
- The vestibular system :
 - Movement, gravity, change of position and orientation of the body
 - Self-regulation, maintenance of appropriate level of awakening
 - Modulates other sensory systems

FULL CARE OF THE PERSON

BEHAVIOURIST METHODS

▶ Introduction

- America of the North and Northern Europe
- Systematic Work on competences:

- Psychomotor skills

- Cognitive

- Social

- Indirect Rehabilitation of the behavioral problems: modification of the aberrant behaviors

- Early and intensive:

- To cause total progress

- long-term Improvement of the evolution

- Important participation of the family

ABA Method

- ▶ I
 - Based on the theory of the training of Skinner (1953)
 - ABA Method (Applied Behavior Analysis)
 - Understand in what the environment influences the behaviors
 - Develop strategies to change inappropriate behaviors
 - Improvement of the social behaviors

ABA METHOD

- ▶ **Common characteristics**
 - Focusing on the same fields of competences
 - Taken into account of environmental stimulations
 - Capacities of imitation
 - Use of the language in its two sides
 - To play or use objects in a suitable way
 - To interact socially with others
 - Trainings in a very structured context
 - Use of strategies to allow them changes
 - Active Implication of the family

ABA METHOD

- ▶ In short, programs with behavioral reference
 - Principles of the operative training
 - Analysis
 - Modification
 - Develop socially acceptable behaviors
 - Reduce inappropriate behaviors
 - Mainly intended to the young children
(between 2 and 6 years)

EDUCATIVE METHODS

TEACCH Program

- ▶ Treatment and Education of Autistic and
- ▶ Communication Handicaped Children
- ▶ Eric Schopler: 1960.
- ▶ Autism
 - Is not due to a parental pathology
 - Probable result of a cerebral dysfunction with organic origin
 - Opposite attitude with B. Bettelheim

TEACCH Program

- ▶ Basic principles
 - Strong collaboration family/professional
 - Diagnostic assessment
 - Individualized Project
 - Specialist education with autistic symptomatology
 - Reception facilities
 - Employment aid for the adults...

TEACCH Program

- ▶ Adapted program
 - Needs
 - Interests
 - Competences
- ▶ Recognition of differences
 - Inter-individual
 - Intra-individual
- ▶ Strong Interest about person's competences

TEACCH Program

- ▶ Strong interest about person's competences

- ▶ Strengths

- ▶ Weakness

- ▶ Emerging competences

- ▶ Use of psy test: PEP-3 / AAPEP



— personalized project

To aim for the integration: the structuring environment

To STRUCTURE?

- ▶ Need for adapting the environment in order to make it understandable
- ▶ To discipline its language
- ▶ To use visual aids
- ▶ To structure space
- ▶ To structure time
- ▶ To structure the activities
- ▶ To propose an individualized accompaniment

DISCIPLINE THE LANGUAGE

- ▶ **To simplify to the maximum verbal instruction**
 - ✓ Avoid double instructions
 - ✓ Do not hesitate to repeat (loss of the sound trace)
 - ✓ Include the person in the collective instructions
 - ✓ Ask for joint attention (glance + listening if possible)
 - ✓ Underline what is important (difficulty of sorting out and recycling)
 - ✓ Use of the pictograms or the written language

DISCIPLINE THE LANGUAGE

▶ Transmit clear messages

Say to the person what he must do precisely, rather than what he doesn't have to make:

“go slowly” rather than *“do not run”*

Precisely congratulate the person on what he made a success of:

“cheer, you folded the linen well”

Clarify its own mental states while avoiding being irritated:

“look at me, I am annoyed, it is interdict to strike”

VISUAL AIDS: FOR A BETTER UNDERSTANDING

- ▶ Why? :
 - Speech difficulty in its various aspects
 - But: good capacities of visual discrimination,
“*visual thinkers*” (Grandin Temple)
 - Assistance to better understanding the instructions,
situations, progress of the activities...
 - Allows the permanence of what is said
 - Allows the nonverbal one’s expression

STRUCTURING THE FRAMEWORK

Why?

- ▶ Disturbances of the information processing (cognitive characteristics)
- ▶ Incoherent, unforeseeable character and distressing environment
- ▶ Behavioral problems

TIME STRUCTURING

- ▶ Why?
 - Difficulties of locating itself in time
 - Difficulties of apprehending the succession of the activities
 - Difficulties of anticipating
 - Difficulties of estimating the durations

- ▶ How?
 - Multiplication of ritual and routines
 - Visualized Timetable
 - Visualization of the durations

TIME STRUCTURING

- ▶ Timetable
- ▶ Structuring of the week, the day, half-day or of an activity... according to needs and autonomy level of the person
- ▶ Predictability = security
- ▶ Permanence of the instruction
- ▶ Support autonomy
- ▶ “obligation” since it is written
- ▶ Less behavioral problems

TIME STRUCTURING

- ▶ Give priority to regular timetables, routines, rituals
- ▶ Warn the person of the possible changes
- ▶ To envisage an “unforeseen” picto
- ▶ The picto “to wait” makes it possible to avoid crises related to uncertainty
- ▶ Impose a time of end of the activity
- ▶ Allow short breaks (not eviction but attentional relief)

UNFORESEEN

?

WAIT

BREAK

ADOLESCENCE GENERAL STUDIES

- Contrasted evolution: clear progression for some. Frequent regression (behavioral symptoms - social operation).
- Physical and sexual maturation and “features” of adolescence.
- Occurred possible of depressive elements
- In the absence of mental retardation: possible schooling but obstructed by cognitive constraints (difficulties of abstraction), difficulties of planning, of comprehension and of answer of the educational requirements

ADULTS GENERAL STUDIES (1)

- Possible development of the relations to others but friendly relations or in love problematic.
- Daily autonomy worse than persons with same intellectual level.
- Stability of verbal, intellectual and emotional competences.

ADULTS GENERAL STUDIES (2)

- 5 to 20%: social life close to the normal.
- 15 to 30%: average adaptation, personal autonomy, work within protected framework
- 40 to 60%: limited in social life, incapacities of degrees variables for personal autonomy.
- Language for more than 50%, with characteristics
- Stability of the diagnosis, but in 14%, sufficient progress in social relations so that diagnostic criteria are not present any more (Rutter)

Remerciements

Les informations et illustrations présentés dans ces slides proviennent essentiellement des outils et supports

- Du CRA de Montpellier
- De l'ANCRA (Association Nationale des Centres de Ressource Autisme)

On trouvera également des références aux Recommandations de Bonnes Pratiques Professionnelles de l'ANESM et de la HAS

ANESM: Agence nationale de l'évaluation et de la qualité des établissements et services sociaux et médico-sociaux

HAS: Haute Autorité de Santé