Infantile Autism and SSLD Intervention

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Autistic Spectrum Disorder (ASD)

- Autism (Kanner 1943)
- Asperger's Syndrome (Asperger 1944)
- Impaired development of social skills
  - Social interaction: withdrawal, disengagement
  - Processing of interpersonal information (e.g., empathy, understanding other's point of view, reciprocity)
  - Interpersonal communication
- Atypical behavior: repetition, self-injury, aggression
- Dysfunctional relationship with objects: obsession with sameness, particular manipulation, over-reaction, unusual interest (e.g., train schedule, make of automobile, calendar)

Diagnosis: What is Autistic Disorder?

American Psychiatric Association (DSM-IV-TR)

http://www.autismsocietycanada.ca/pdf_word/MB_Supp_Schls_appendixa.pdf

The essential features of Autistic Disorder are the presence of markedly abnormal or impaired development in social Interaction and communication and a markedly restricted repertoire of activity and interests. Manifestations of the disorder vary greatly depending on the developmental level and chronological age of the individual. Autistic Disorder is sometimes referred to as *early infantile autism, childhood autism, or Kanner's autism.*

Prevalence

- From birth to 3 years
- 45 to 90/10,000
- 3 to 4 times more prevalent among boys than girls
- Girls with autism have a higher probability of intellectual impairment
- Family incidence rate 4 times that of the general population
- Increase over the last 3 decades
  - Actual increase or improved detection and diagnosis?
  - Over-inclusive/liberal diagnosis – political economy of diagnosis?
  - Environmental pollution, diet?

Etiology: What are the causes?

- Genetic: neurological development,
- Functional disorder
- Prenatal environment
- Nurture: environment, biochemical processes
- Psychogenic theory: generally discredited

Pathology: How Does It Affect the Child?

- Structural and functional anomaly in the brain
- Areas responsible for information processing and behavior more affected
- Inability to synthesize and integrate information in different modalities
  - Fragmentation, selective focusing on a particular dimension or specific elements of the overall information input
  - Auto-stimulation
- Social disorder: dysfunctional information processing including reception, integration, articulation, and expression
- Impaired learning: Observation learning, imitation/modeling, symbolically mediated learning all affected

Treatment

- No effective medical treatment available yet

- Behavioral treatment is the major option in terms of
  - Symptom removal
  - Improving social competence
  - Subjective experience: autonomy, self-efficacy

Popular Treatment Method 1: Applied Behavior Analysis

- Based on operant conditioning principles
- Systematic incremental training
- Item by item progression (e.g., getting dressed, making verbal requests)
- Individual training of 30 to 40 hours per week

Limitation/Problems

- Very costly
- High demand on the child's emotion, energy, and involvement
- Affects everyday life (family, socialization, schooling)
- Difficulty in transfer of learning to real life situation

Popular Treatment Method 2: TEACCH
Treatment and Education of Autistic and Related Communication Handicapped Children

- Social environment to match the needs of the child
- Helps the child to understand the external environment and to develop communicative ability (focusing on cognition and behavior)
- Learning appropriate behavior to replace dysfunctional ones

Limitation/Problems
- Too structured (record schedules, learning aids, progress charting)
- Transfer of learning to real-life

Other Treatment Methods

- Sensory Integration
- Social Stories: Breaking social processes into simple, concrete units that are easier to grasp
- PRT (Pivotal Response Treatment): Attention to motivation, multimodal information processing, self-care, active social behavior
- PECS (Picture Exchange Communication Systems)
- Floor Time: According to developmental stage, focuses on feelings and emotional development
- Music therapy, art therapy
- Animal/pet therapy

SSLD
Skills and Strategies Learning and Development

- An action oriented learning system that pays attention to all the key domains of the child's functioning (biology, motivation, cognition, emotion, behavior) as well as the environment.
- Aims at enhancing agentive, interpersonal, and social competence
- Built on social cognitive theory, social and learning psychology
- Systematic Learning
  - Personalized needs analysis and formulation of learning objectives
  - Learning how to learn through observation learning, modeling, and symbolic mediation
  - Feedback, review, refinement
  - Grounded in real-life performance

SSLD
Strategies and Skills Learning and Development

A systematic learning model aiming at helping people to learn new strategies and skills so that they can function more effectively within their social reality.
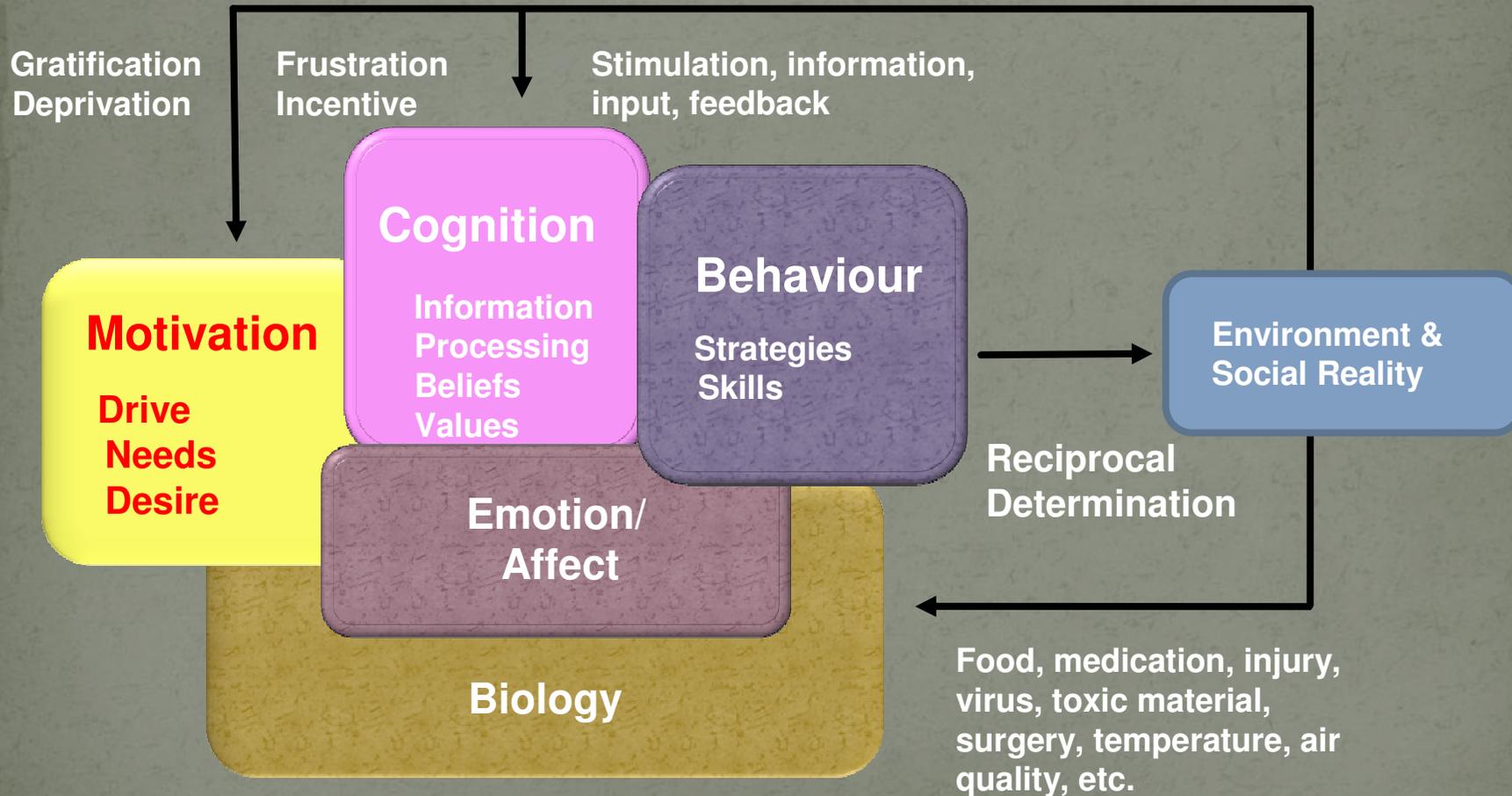
Examples of SSLD Applications

- People with social phobia learning to develop social and intimate relationships

- Hospitalized patients with severe mental illness learning to adjust to community living

- Children with autism learning to interact with others

- Parents learning to help their children learn and develop skills

- People with personality disorders learning prosocial strategies to realize personal goals
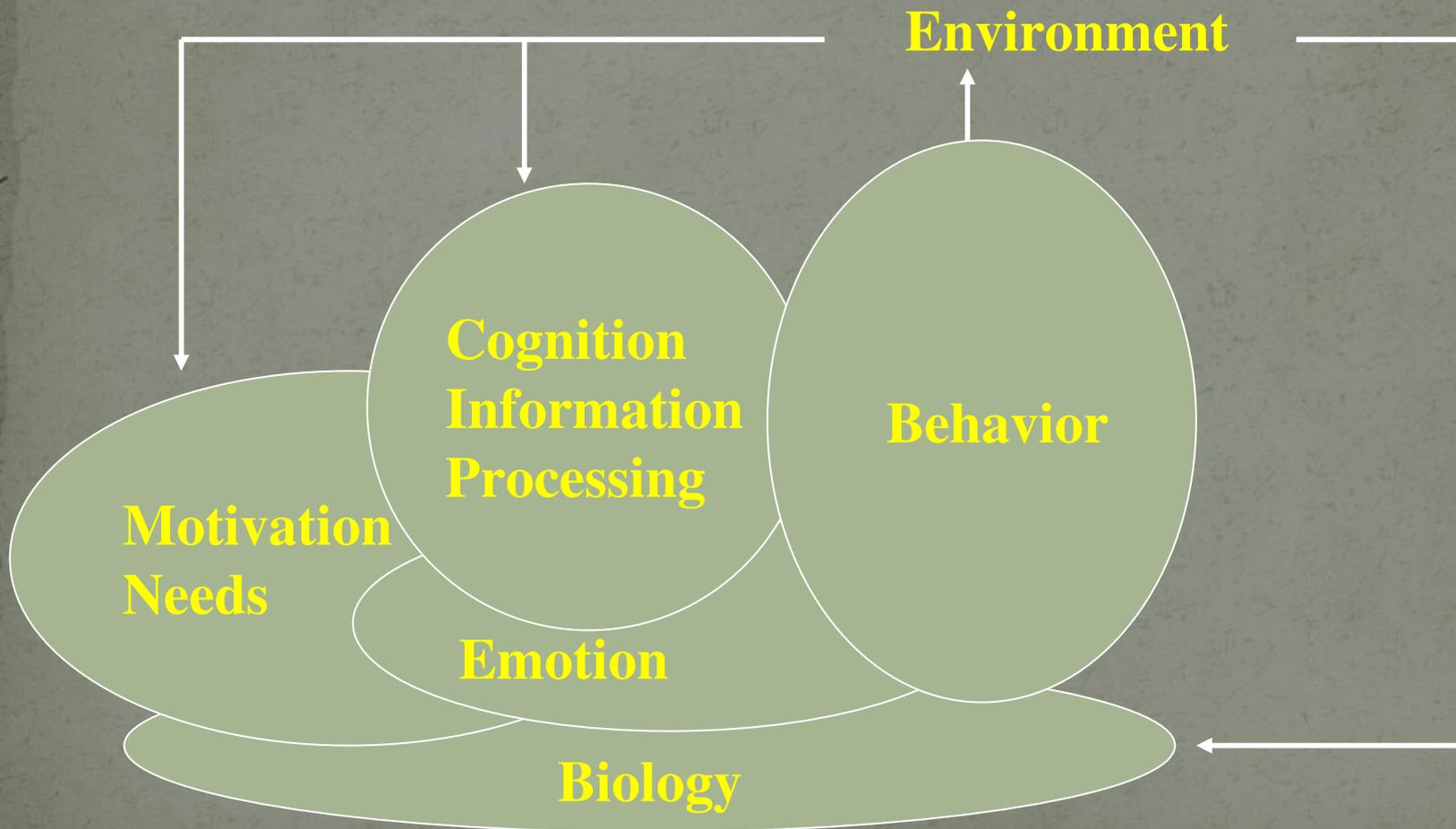
SSLD Understanding of Autism

- The child is unable to process information effectively due to neurological impairment, especially complex and multi-modal interpersonal signals. (biology and cognition)
- Inability to decipher and process information leads to feeling overwhelmed, perplexed, confused, and anxious (emotion)
- Withdrawal or disengagement as strategies for avoiding negative emotional experience (motivation and behavior)
- While other children can gratify various needs through social interaction, children with autism have to use other means such as auto-stimulation, control and manipulating objects, maintaining rigid order/pattern (motivation, behavior, environment)

Human Behaviour and the Environment

Gratification Deprivation

Frustration Incentive

Stimulation, information, input, feedback

Motivation

Drive Needs Desire

Cognition

Information Processing Beliefs Values

Behaviour

Strategies Skills

Emotion/ Affect

Biology

Environment & Social Reality

Reciprocal Determination

Food, medication, injury, virus, toxic material, surgery, temperature, air quality, etc.

SSLD Analysis of the Child's Reality

Environment

**Cognition
Information
Processing**

Behavior

**Motivation
Needs**

Emotion

Biology

What Happens in SSLD?

- Through systematic learning, the child can master effective agentive, interpersonal and social strategies and skills. These will lead to need gratification, displacing the original symptoms.

- In SSLD, the child does not only learn specific skills (e.g., eye contact, verbal requests) but also learns how to learn – imitation, observation learning, and symbolically mediated learning

- SSLD learning is grounded in real life, involving people in the child's life world (parents, siblings, peers)

Replacing Symptoms with Strategies and Skills

SYMPTOMS

Compulsive maintenance of stereotypic patterns

Spinning, flapping

Fragmentation of persons

Face-to-face interaction

Expression of needs and emotion
  （verbal or symbolic）

Bodily contact and interactional games

Needs/Goals
pleasurable stimulation,
autonomy, agency,
control over environment

STRATEGIES AND SKILLS

Special Features of SSLD

- Learning how to learn: emphasis on observation learning (including symbolic mediation) as the most important mode of human learning

- Focus on behavior, yet connecting it with the key domains of human experience and environmental realities

- Individualized and systematic learning of adaptive skills and strategies

- The child comes before the structure or system, which is used to facilitate the child's learning. We modify the structure to suit the child, not the other way around.

Special Features of SSLD

- Multiple contingency thinking: Program design takes into consideration of the child's circumstances and needs, developmental status,

- Comprehensive attention to all domains: biology, motivation, emotion, cognition, behavior, and environment

- Maximize opportunity, time, and space for learning
  - Mobilize family and people in the child's life,
  - Empowering parents through parallel learning program

- Grounded in real life – minimize the difficulty of learning transfer

- Pragmatism: Eclectic inclusion of other methods

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If you want to learn more about SSLD

You can visit our website at

http://ssld.kttsang.com/