



INTERNATIONAL
AUTISM
INSTITUTE

Autism as the Intense World Syndrome

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Some introductory points:

- Neutral interpretation of autism:
 - 2 sides of the same coin
 - E.g., hypersensitivity vs. sensory intolerance
- Phenomenological approach
and
- Research method



The Intense World Syndrome

- **Gestalt perception**
- **Inability / difficulty to stop feeling the change**
- **Cognitive 'sensitivities'**
- **Sensory sensitivities**
- **Emotional sensitivities**
- **Spiritual sensitivities**
- **Sensory gating deficits**
- **Minicolumns**

Markram et al. (2007): The Intense World Syndrome

The core neurological pathology is excessive neuronal information processing and storage in local circuits of the brain, which gives rise to hyperfunctioning of the most affected brain regions.

All features of autism (social interaction impairments, language and communication problems, cognitive functioning, repetitive behaviours, etc.) are rooted in sensory overload experienced by autistic individuals.

They perceive, feel and remember too much.

Excessive neuronal processing may make the world painfully intense when the neocortex is affected, and even aversive when the amygdala is affected (Markram et al. 2007)

Too much sensory information

Gestalt perception (or 'Sensory gating deficit'):

- The inability to distinguish between foreground and background information
- *"It was like having a brain with no sieve..."* (Donna Williams)

- Neuropathology of cortical inhibitory interneurons (Casanova 2002)
- An imbalance of cortical excitation and inhibition (Rubenstein & Merzenich 2003)
- Filtering Model (Bogdashina 2003; 2006; 2010; 2013)
- The 'Intense world syndrome' (Markram et al. 2007)



Gestalt perception

- Every situation is unique
- The slightest change creates a new Gestalt - making 'old behaviours'/skills non-applicable.
- Any change destroys gestalt and brings confusion and fear

Consequences: fragmentations, distortions, overload, delayed processing, etc.

Adaptations & compensations: Monoprocessing, peripheral perception, stims



On the other hand, Gestalt perception can account
for strengths of autistic people's perception, too

Eric Phipps 'Megapolis'

Peter Myers 'Catz'

Minicolumns

Casanova et al. (2003): In the non-autistic neocortex, information is transmitted through the core of the minicolumn and is prevented from activating neighbouring units by surrounding inhibitory fibres.

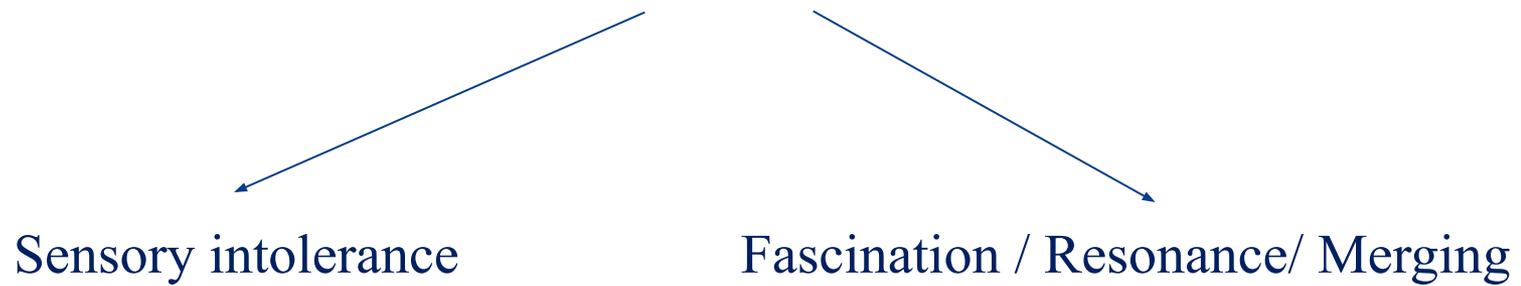
Minicolumns in autism are smaller, more numerous and have an abnormal structure, so stimuli are no longer contained within them but rather overflow to adjacent units, thus creating an amplifier effect. flow.

Too long

- The inability/difficulty to ‘stop feeling the change’ – leading, in turn to overload and/or hypersensitivity
- Rubenstein & Merzenich (2003) *Increased ration of excitation/ inhibition in key neural systems*
- Casanova (2002; 2005) *Minicolumns in autism*



Hypersensitivity



Sensory intolerance

Fascination / Resonance / Merging

Sensory intolerance:

- What might be considered enjoyable (e.g., fireworks) may be fearful or overwhelming to an autistic individual
- Some colours and patterns of the clothes people wear, perfume, etc.
- Strategies to cope with light sensitivity are turning off any unnecessary lighting (esp. fluorescent lighting), using lamps rather than overhead lights, and tinted lenses



Emotional hypersensitivity

- Emotions start as *sensory* feelings
- As most autistic individuals' senses work in 'hyper', and feelings start as sensations (either conscious or unconscious), it is no wonder that many autistic people are emotionally hypersensitive
- Emotional hypersensitivity/vulnerability to overload



□ Echoemotica

(Stephen Shore)

□ Resonance

□ Merging

(Donna Williams)



Often those who take care of autistic children trigger (by their emotional state) what we call challenging behaviours and then are puzzled as to what caused the outburst or meltdown.

Many autistic individuals automatically tune into the mood of their carers' and instantly share their emotions. They amplify their carers' emotions and feed them back.

If the emotions are negative, 'difficult behaviours' emerge (caused by the negative emotional energy that has been 'fed' to the individuals by those around them).



Empathy in autism (and alleged lack of it)

- Autistic people are said to be (severely) impaired in their ability to empathise with other people which is reflected in the ‘mind-blindness theory’ of autism (*Baron-Cohen et al. 1985, Frith 2003*)
- In fact, the opposite is true: Though they do have difficulty in recognising ‘conventional expression of emotions’, and interpreting their own emotions, many of them can easily ‘catch’ the ‘emotional energy’ of others, resonating with them, and experiencing the same physical sensations through their bodies.

Different types of empathy:

- Affective empathy – strong in non-autistic people
- - Sensory empathy – working ‘through resonance in a relationship between sender and receiver in which the receiver loses their own separateness in merging with the sender’ (*Donna Williams*). It is very strong in autism, but weak in ‘non-autism’.

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- **Intellectual empathy** is quite common in autism – typically, AS individuals whose sensory empathy is not pronounced but who are able to **feel and appreciate emotions intellectually – through art, music, literature, etc.**
 - This is because, through the arts, emotions are translated into sights, sounds and words. A very important feature of ‘intellectual empathy’ is that it is very logical. They can logically explain and rationalise the feelings they have in different situations.
 - Sometimes they may empathise with those who do not seem deserve it (from the conventional point of view), but their argument is logical.

