Neurons to Neighborhoods
Los Angeles, CA
May, 2003
Pat Ogden Ph.D.
Levels of Information Processing

COGNITIVE PROCESSING
Conceptual information processing, reasoning, meaning-making and decision making.

EMOTIONAL PROCESSING
Expression and articulation of feeling and affect. Emotional processing adds motivational coloring to sensorimotor and cognitive processing.

SENSORIMOTOR PROCESSING
Processing through the body. Sensorimotor processing involves sensory, physiological and motor sequences associated with the senses, impulses, movement, postural changes, orienting responses, physical defensive responses and ANS arousal

Ogden & Minton, 2000
Sensorimotor Processing

...process that organizes sensation from one’s own body and from the environment and makes it possible to use the body effectively within the environment. The spatial and temporal aspects of inputs from different sensory modalities are interpreted, associated, and unified....The brain must select, enhance, inhibit, compare, and associate the sensory information in a flexible, constantly changing pattern...

Ayres, 1989, p. 11
Evaluating Sensorimotor Processing

Look at the habits by which a person orients to, registers, organizes, interprets, and acts on information from the sensorimotor systems (sensation, movement, muscles, touch, sight, sound, smell, taste)

Ogden, 2003
Attuning to the Body

The therapist must learn to notice and name the physical patterns and the moment-by-moment organization of sensorimotor experience in the client, and teach the client to do the same:

- Skin color
- Quality of Tissue
- Structure
- Posture
- Tonicity
- Breath
- ANS response
- Facial expression
- Voice
- Micromovements

Ogden 2002
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<th>twitch</th>
<th>dull</th>
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Vocabulary for Sensorimotor Experience
(Ogden, 1999)

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- Dull
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- Tremble
- Shivery
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- Fluid
- Frozen
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- Radiating
- Shudder
- Numb
- Flaccid
- Blocked
- Goose-bump
- Congested
- Heavy
- Tight
- Puffy
- Bubbly
- Paralyzed
- Sweaty
- Moist

- Clammy
- Jumbly
- Jerky
- Energized
- Stringy
- Damp
- Electric
- Tight skin
- Light
- Fuzzy
- Dense
- Cool
- Throbbing
- Faint
- Quivery
- Pulsing

- Bloated
- Flushed
- Prickly
- buzzy
- Flutter
- Pressure
- Jumpy
- Tense
- Wobbly
- Tingly
- Nauseous
- Spinning
- Dizzy
- Tremulous
- Breathless
- Quake
Using Cognition to Support Sensorimotor Processing

Mindfully tracking (following in detail) the sequential physical movements and sensations associated with unassimilated sensorimotor reactions to trauma, such as:

- motor impulses
- heart rate
- movements of the spine
- muscular tension
- breathing
- facial expression
- gestures
- postural changes
- trembling
- Various other gross motor movements or micro-movements.

Ogden, 2000
Uncoupling physical sensations from trauma based emotions

Development and processing of sensation and/or movement

Initiation: The beginning of sensation and/or movement (inhibit awareness of emotions, content, etc.)

Completion and resolution of sensation and/or movement
The Window of Tolerance

Optimal Arousal Zone

High Arousal

Low Arousal

Window of Tolerance
Optimal Arousal Zone

Ogden and Minton (2000)
Bi-Phasic Trauma Response

Hyperarousal: too much arousal to integrate

- Emotional reactivity
- Hypervigilance
- Intrusive imagery
- Obsessive/cyclical cognitive processing
- Tension, shaking, ungrounded.

Window of Tolerance
Optimal Arousal Zone

Hypoarousal: too little arousal to integrate

- Flat affect
- Inability to think clearly
- Numbing
- Collapse

Ogden and Minton (2000)
Somatic resources emerge from physical experience, but influence psychological health. They are the physical actions and capacities that support self regulation and provide a sense of well-being, competency and mastery.

Ogden, 2002
The Psychology of Action

The patients who are affected by traumatic memories have not been able to perform any of the actions characteristic of the stage of triumph [mastery]. They are continually seeking this joy in action...which flees before them as they follow.

Janet (1925, p. 669)
Pleasure of the Completed Action

[An] important characteristic of the completed action, one we must do our utmost to obtain however difficult it may be, is pleasure....When an action is being functionally restored...we almost always notice at a certain moment that satisfaction reappears in one form or another, a sort of joy which gives interest to the action, and replaces the feelings of uselessness, absurdity, and futility which had formerly troubled the patient in connection with the action.

Janet (1925, p. 988-989)
**Self-Regulation:**
(from Allan Schore)

**Auto regulation** is the ability to self-regulate alone without other people. It is the ability to calm oneself down when arousal rises to the upper limits of the window of tolerance or to stimulate oneself when arousal drops to the lower limits.

**Interactive (psychobiological) regulation** involves the ability to utilize relationships to mitigate breaches in the window of tolerance, and to stimulate or calm oneself.  

Ogden 2002
Auto and Interactive Somatic Resources

• **Somatic Resources for Interactive Regulation**
  - Proximity
  - Boundaries and Defense
  - Reaching out, holding on and letting go

• **Somatic Resources for Auto Regulation**
  - Grounding
  - Alignment
  - Containment
  - Centering

Ogden 2002
Assessment of Somatic Resources

• **Content**: What the patient says about self-regulation; history

• **Bodyreading**: observations of muscular, movement, postural and structural patterns

• **Patient’s awareness of the body**: sensation/tonicity in the arms and legs; sense of alignment/collapse/holding, etc.

• **Patient’s awareness of the connection** between the body and personal psychology

• **Experiments**: conduct somatic experiments

Ogden 2002
Building Somatic Resources

1. **Education**
   Teaching patients about structural and movement patterns

2. **Awareness**
   Asking patients to be aware of inner body sensation, muscular, postural, and structural patterns

3. **Experiments**
   Trying out different movements, gestures, and physical organization.

4. **Mirroring**
   The therapist mirrors the patient’s body posture, structure, or movement.

5. **Modeling**
   The therapist physically demonstrates somatic resources

6. **Practice**
   The patient repeats the actions of somatic resources with therapist and others

Ogden, 2002
<table>
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<tr>
<th><strong>Somatic Trauma Responses</strong></th>
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<tr>
<td><strong>Social Engagement System</strong></td>
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<tr>
<td>(ventral vagal system)</td>
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<tr>
<td>facial muscles, eyes, larynx, middle ear; adaptive movement</td>
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<tr>
<td><strong>Attachment for Survival</strong>:</td>
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<tr>
<td>voice, movement toward safe person</td>
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<tr>
<td><strong>Flight</strong></td>
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<tr>
<td>movement away from source of threat to potential safety</td>
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<tr>
<td><strong>Freeze</strong></td>
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<tr>
<td>stiffening type of immobility, shallow, fast breathing, tense muscles</td>
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<tr>
<td><strong>Fight</strong></td>
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<tr>
<td>movement toward the threat; aggressive action</td>
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<tr>
<td><strong>Submission</strong></td>
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<td>limp type of immobility</td>
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Ogden 2002, adapted from E. Nijenhuis; S. Porges
Facilitating Sensorimotor Processing

1. The patient is taught to be aware of habitual movements, postures, or structural patterns, and to practice alternatives to these patterns.

2. The patient is taught to observes and track inner body sensation until the movement of sensation and physical impulses until the sensations and impulses have stabilized.

3. “Little experiments” are conducted to discover a patient’s automatic patterns of organization.

Ogden & Minton, 2000
Teaching Mindfulness of Sensorimotor Experience

The therapist asks questions that require mindfulness of the body to answer:

What do you feel in your body?

Where exactly do you experience tension?

What happens next when your hand makes a fist?

What movement does your body want to make?

Can you describe the qualities of the tension?

What sensation do you feel in your legs right now?

Ogden 2000
PTSD has been classically seen as a biphasic disorder with persons alternately experiencing phases of intrusion and numbing. The intrusive phase is associated with recurrent and distressing recollections in thoughts or dreams, as well as reliving the events in flashbacks. The numbing phase is associated with efforts to avoid thoughts or feelings associated with the trauma, emotional constriction, and social withdrawal.

J.A. Chu (1998, p. 33)
Prediction of Somatoform Dissociation: Jane

• duration and age of onset of bodily threat: Jane was kidnapped and raped repeatedly with a gun at age 4/5 for 5 months

• interpersonal trauma severity: prior to the actual abuse, Jane’s father described in detail what would happen to her when the gun went off

• bodily threat from a person: Jane’s father was the perpetrator

• lack of adequate parenting and emotional support may promote integrative failure: Jane’s father told her that her mother was dead; when Jane was returned to her mother, she never spoke of the abuse because her mother would “dissolve into tears and leave”
Phase-Oriented Treatment Approach based on Pierre Janet (1898)

• **PHASE 1**: SYMPTOM REDUCTION AND STABILIZATION
• **PHASE 2**: TREATMENT OF TRAUMATIC MEMORY
• **PHASE 3**: PERSONALITY INTEGRATION (limiting belief systems, social reconnection, relationship and intimacy, life issues, risk-taking, change)
## Integrating top-down and bottom-up approaches

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<td>• identifies and changes physical patterns</td>
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<td>• how the body processes information and affects meaning</td>
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<td>• appropriate integrating narrative with somatic sense of self</td>
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