



# Texas School for the Blind and Visually Impaired Outreach Programs

[www.tsbvi.edu](http://www.tsbvi.edu) | 512-454-8631 | 1100 W. 45<sup>th</sup> St. | Austin, Texas 78756

## TSBVI Coffee Hour: Exploring the Sense of Touch

August 23rd, 2021 3pm

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Facilitated by

Sara Kitchen, VI Education Consultant, TSBVI Outreach, [kitchens@tsbvi.edu](mailto:kitchens@tsbvi.edu)

Adam Graves, DB Education Consultant, TX DeafBlind Project, [gravesa@tsbvi.edu](mailto:gravesa@tsbvi.edu)

### What will we cover today?

- Physiology of touch
- Psychology of touch
- Teaching implications

### Three Systems of Tactile Input

- Exteroception
- Interoception
- Proprioception

#### Exteroception

Perceiving and responding to tactile information from the world outside the body

#### Interoception

Perceiving and responding to tactile information from the world inside the body

#### Proprioception

Perception & control of body position and balance: may be viewed as both inside and outside the body.

## Processing of Tactile Information

- Discriminative Touch
- Affective Touch

### Discriminative Touch

- Glabrous, non-hairy skin (Hands, mouth, feet)
- Neural pathway travels mainly to cortical regions of the brain
- Intellectual processes like discrimination, recognition, identifying, sorting, categorizing.

### Affective Touch

- Hairy skin
- Neural pathway travels mainly to brainstem & midbrain
- Physiological homeostasis, fight flight freeze (survival stuff)

### Attention & Touch

- Learning vs. Survival
- Active vs. Passive

### Learning vs. Survival

*We always learn what we experience--that which is actually happening for us. This is different from learning from our experience. (Baniel, 2012, p.43)*

Physiological and Psychological Homeostasis (survival stuff) overrides cortical processes.

### Active vs. Passive

- Self-directed movement is required for human brains to form neural pathways (learn)
- Passive = awareness, response to stimuli
- Active = attention, initiation, experimentation, understanding; builds memory

## Social and emotional implications

- Social Messages & Relatedness
- Autonomy & Competence

## Social Messages & Relatedness

*Who do the persons you seek to communicate with and engage perceive you as being? (Symonette in Mertens & Ginsberg, 2009).*

## Autonomy & Competence

- How is messaging internalized by our students?
- Power dynamics & stigma

## Teaching Implications

- Touch carefully, with consideration
- Use brain-friendly, hand-under-hand assistance instead of hand-over-hand.
- Use hand-under-hand and follow the student's lead to acknowledge and promote your student's competence

## Questions?

- Ask now or
- Email us if you think of it later

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- August 23rd, 2021 3pm
- Thank you for joining us!

## Resources

- Baniel, A. (2012). Kids beyond limits: the Anat Baniel method for awakening the brain and transforming the life of your child with special needs. Penguin Group
- Mertens, D. M., & Ginsberg, P. E. (2009). The handbook of social research ethics. Sage.
- Snapp-Childs, W., Casserly, E., Mon-William, M., Bingham, G.(2013). Active Prospective Control is Required for Effective Sensorimotor Learning. Retrieved from <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0077609#s1>