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Krienen, Sebastien, Holmes, Nicholas P., Ferguson, Heather J. and Tamè, Luigi (2026) *Evaluating body structural representation under affective touch*. [Conference item] (Unpublished)

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Macro Area: (those are the choices and the highlighted ones are the ones I chose)

- Cognitive
- Affective
- Social

Keywords (1-5 Keywords)

- Affective Touch
- Body Structural Representations
- Somatosensory Integration
- In-Between Task

Max 20 word title: (7 words):

Evaluating Body Structural Representation under Affective Touch

Max 250 words: (249 words):

Successful interaction with the world relies on the integration of sensory information with internal body representations that guide perception and action. Touch plays a central role in this process, engaging the skin across the entire body surface and supporting both sensorimotor control and social interaction. Tactile processing relies on at least two partially distinct systems, a fast discriminative system mediating spatial and physical properties of touch, and an affective system associated with slow, gentle touch. An important component of this is the body structural representation (BSR). This refers to the internal knowledge of how body parts are spatially organised relative to one another. It is unknown whether and to what extent BSR is influenced by the affective system. To answer this question, the present study uses an adapted version of the in-between task. We will assess the influence of different types of touch, affective and non-affective on the BSR. Participants will judge how many unstimulated fingers lie between two simultaneously stimulated digits. During this task, participants will receive either affective touch, non-affective touch or no touch to their forearm using a motor-controlled brush stimulation. We predict that affective touch will systematically bias finger numerosity judgement accuracy compared to non-affective and no touch conditions, reflecting a

modulation of BSR of the fingers. Specifically, affective touch is expected to enhance sensitivity to finger spacing, leading to more differentiated estimates across numerosity levels.

We believe these findings will enrich current models of affective touch .

**Commented [1]:** Not clear what that is