IEEE World Haptics Conference 2019

Workshop W5
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Affective Haptics as a Direct Link to Emotion

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Skinship is indispensable for children's growth.
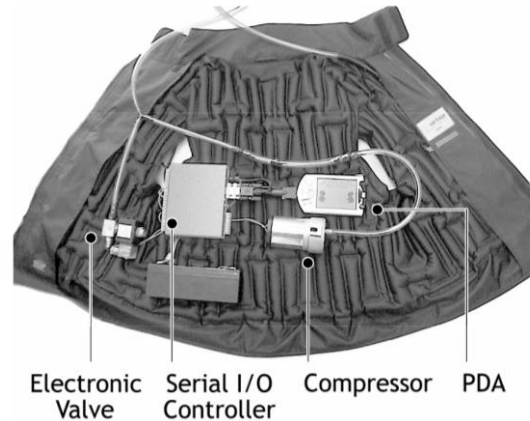It also cheers up and heals parents.

Hug over a Distance
Mueller, Florian; F. Vetere; M.R. Gibbs; J. Kjeldskov; S. Pedell; S. Howard.
Proc. of the ACM Conf. on Human Factors in Computing Systems (CHI 05), Portland, USA,
ACM Press. pp. 1673–1676.

Figure 1. Rubbing the koala sends a wireless Hug over a
Distance executed through the vest.

Affective haptics in emotional communication
D. Tsetserukou, A. Neviarouskaya, H. Prendinger, N. Kawakami, and S. Tachi,
Proc. 3rd Int. Conf. Affective Comput. Intell. Interact. Workshops, Sep. 2009, pp. 1-6.

iFeel_IM!

Workshop of Affective Haptics in
Haptics Symposium 2012
Organizer: Dzmitry Tsetserukou

Note 1

Advanced haptic device

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Skinship

Hug in various cultures

In Japan, people seldom hug.

People don't like being touched by a stranger other than on their hands.

Emerging question

> ➢ What is the essence of hug?
>   Is haptic effect separatable?

> ➢ Frequent haptic stimulation in daily life is
>   beneficial for human beings?
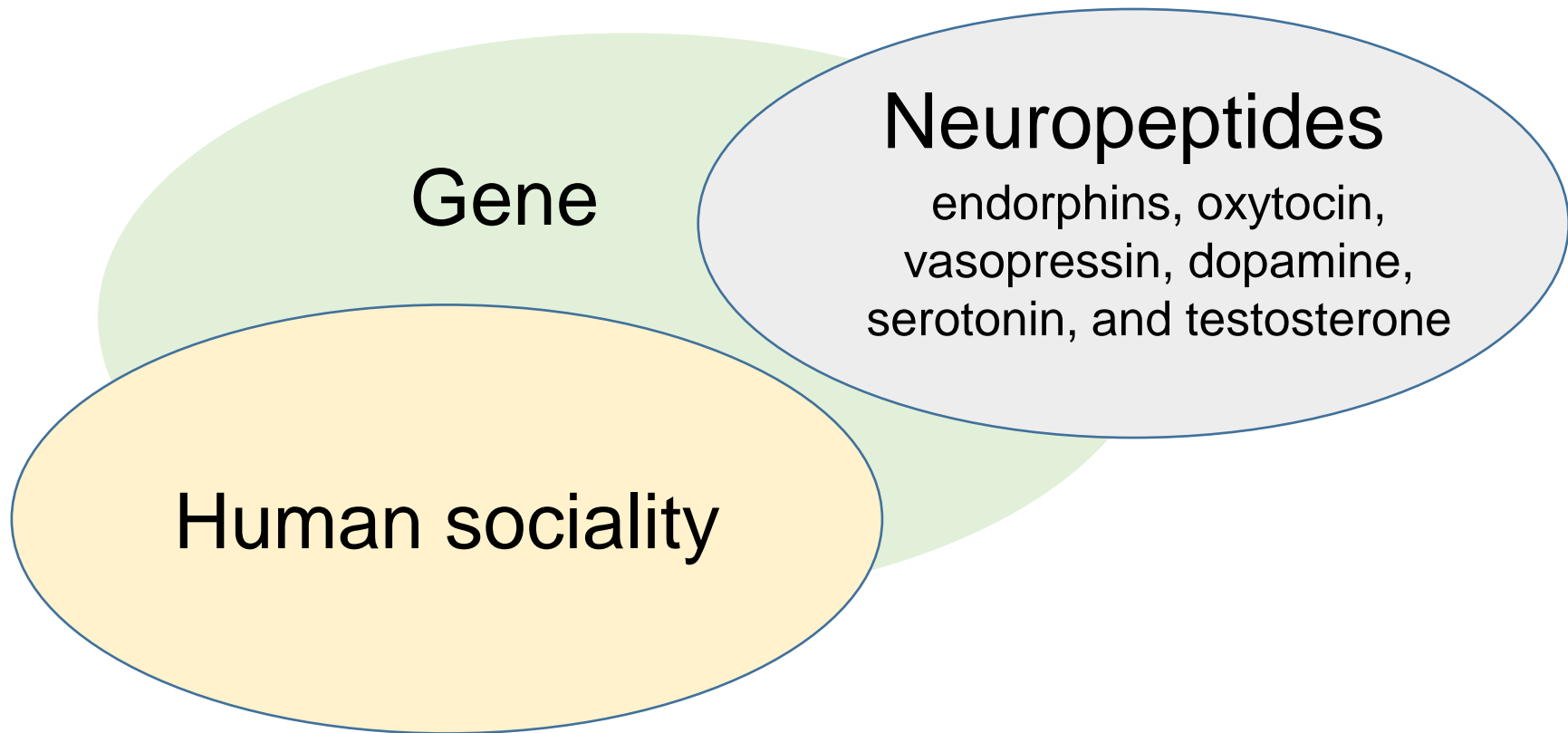
Practical wearable device is emerging.

Note 2

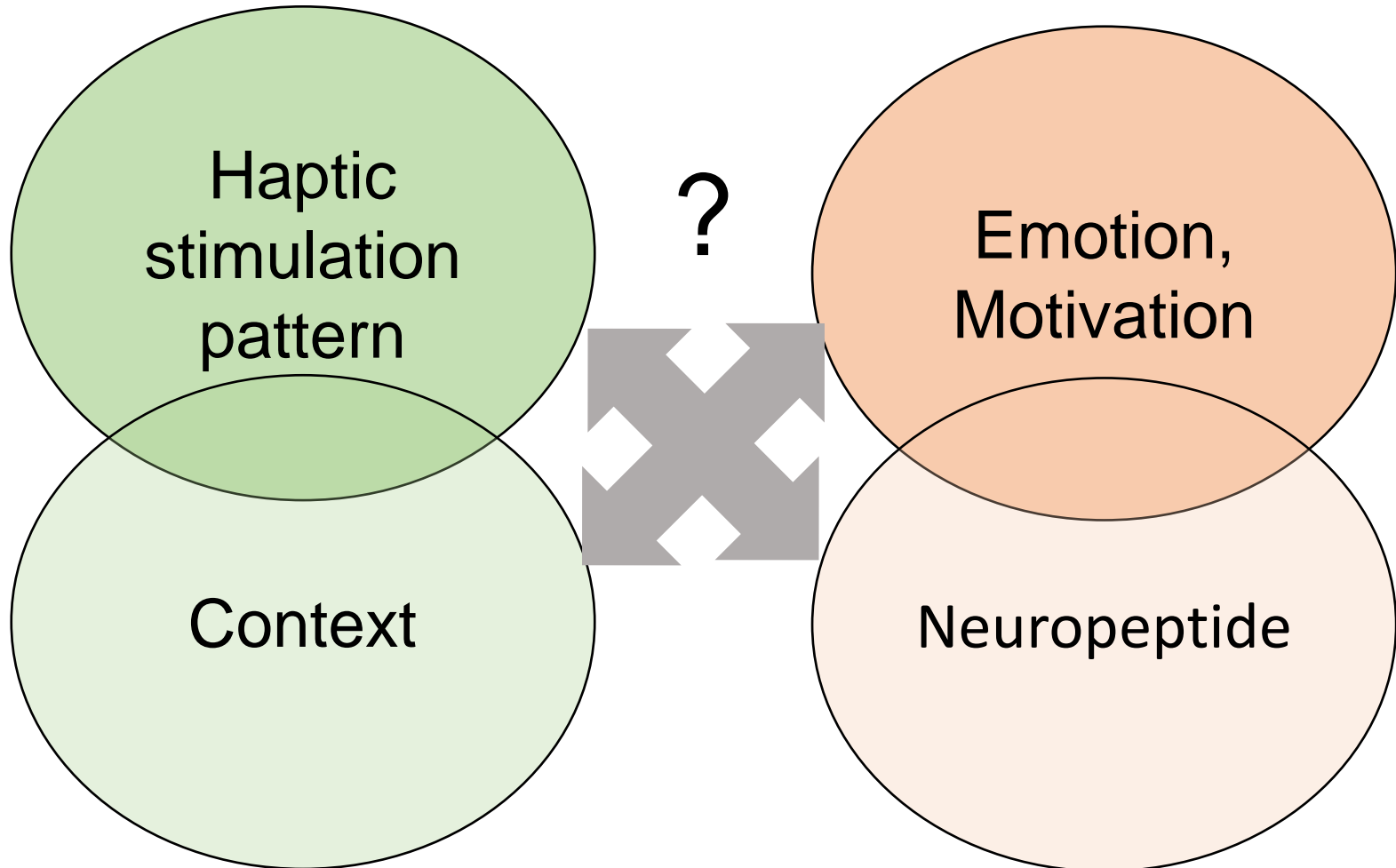Scientific evidence between haptics and emotion

Gene clarifies the relationship of Neuropeptides to Sociality

Gene

Neuropeptides
endorphins, oxytocin, vasopressin, dopamine, serotonin, and testosterone
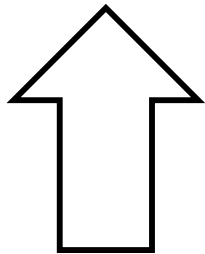
Human sociality

Emerging question

Relationship among them

Note 3

Creating haptic signal

Realtime context-aware haptic signal

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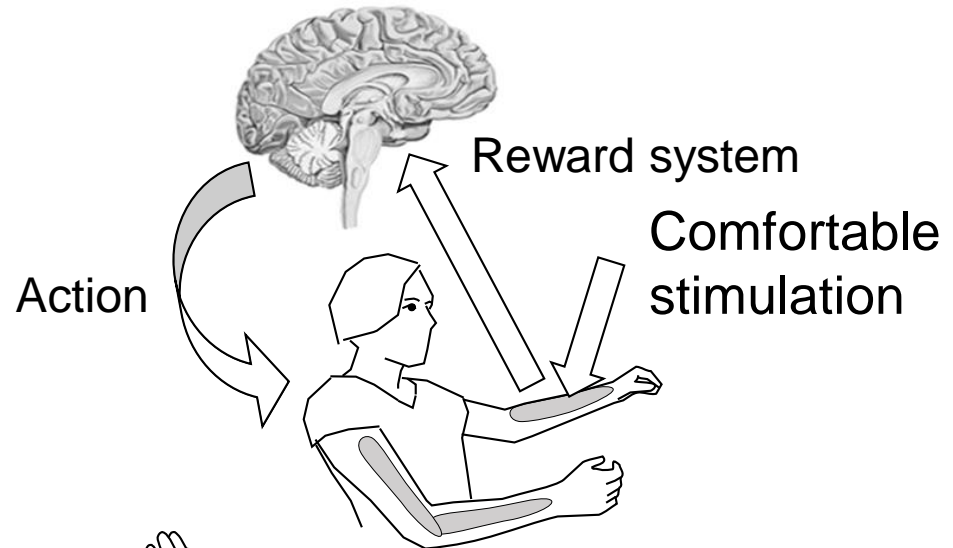**Advancement of Sensing, Networking, and Computing**

Haptic stimulation in various contexts

Relaxation

Controlling likes and dislikes

Inducing behavioral change

Encouragement

How to create relaxing stimulation

Reward system

Comfortable stimulation

Action

9:30-10:00 Mounia Ziat, Bentley University
The Affective Dimensions of the Cutaneous Rabbit Effect

10:00-10:30 Yasutoshi Makino, University of Tokyo
Haptic Characteristics in Human Behavior through Neural Network Estimation

10:45-11:15 Takuji Narumi, University of Tokyo
Artificial Bodily Reactions via Haptic Feedbacks for Evoking Emotion

11:15-11:45 Takufumi Yanagisawa, Osaka University
Neuro-Imaging and Neuro-Modulation of Somatosensory Information and Phantom Limb Pain

11:45-12:15 Masahiro Shiomi, ATR
Social Touch in Human-Robot Interaction

This workshop is supported by