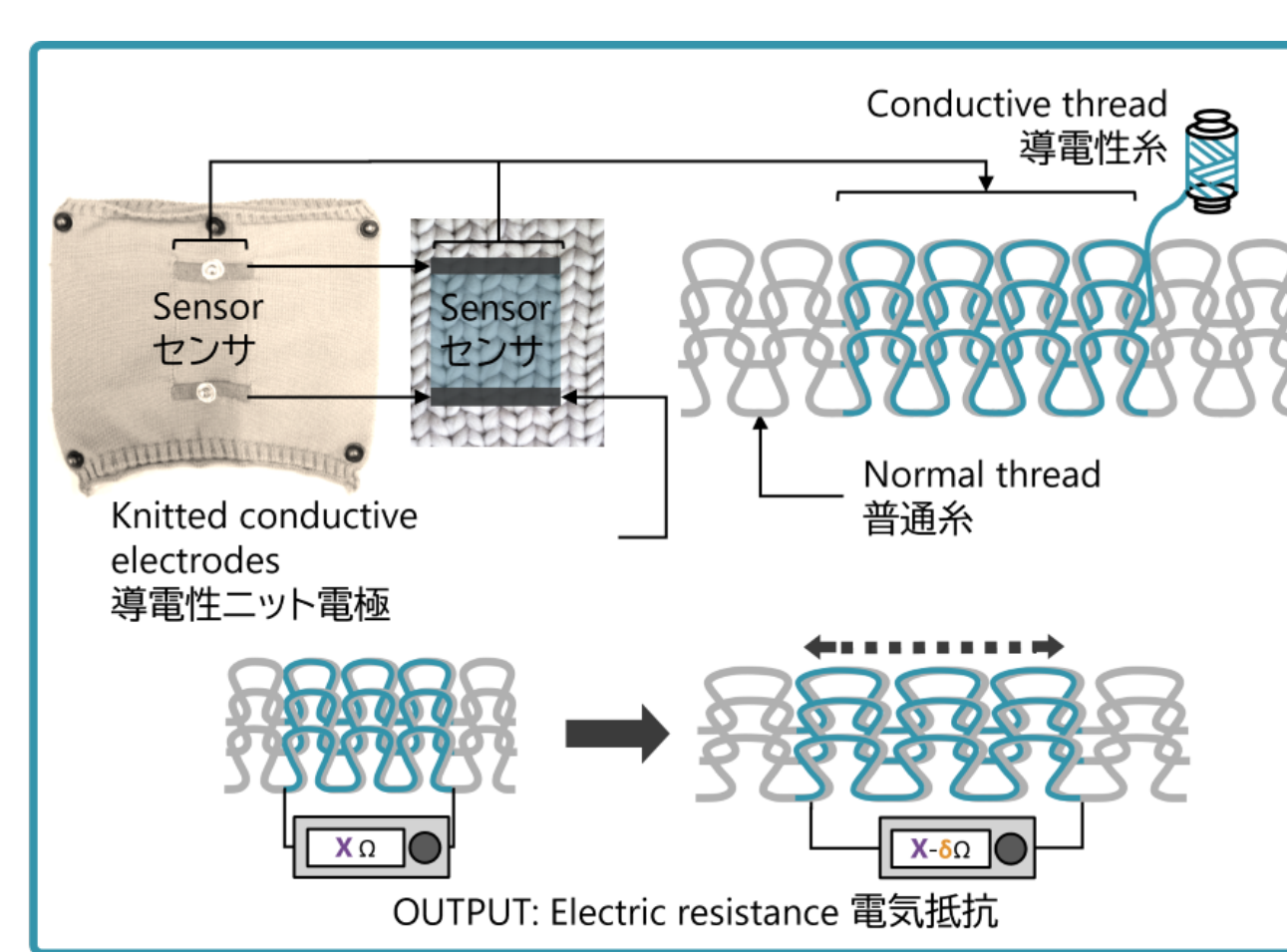


Flexible Art-Technology Tool for Emotional Intervention

- ▶ **Aesthetic experience promoting health and wellbeing**
- ▶ **Art facial expressions triggering emotional contagion**
- ▶ **Tactile experience enhancing emotional immersion**

Textile Technology, Flexible Design, Art Value

- Our art-technology tool includes knitted sensor technology developed within RIHSA.
- It has a flexible design. The design is highly adaptable and allows for easy modifications:
 - The sensor technology type (pressure, textile, etc.),
 - The aesthetic appearance,
 - The spatial layout,
 - The face and facial expression style.
- Its art value is validated through its publication in Leonardo journal (MIT Press) [1].

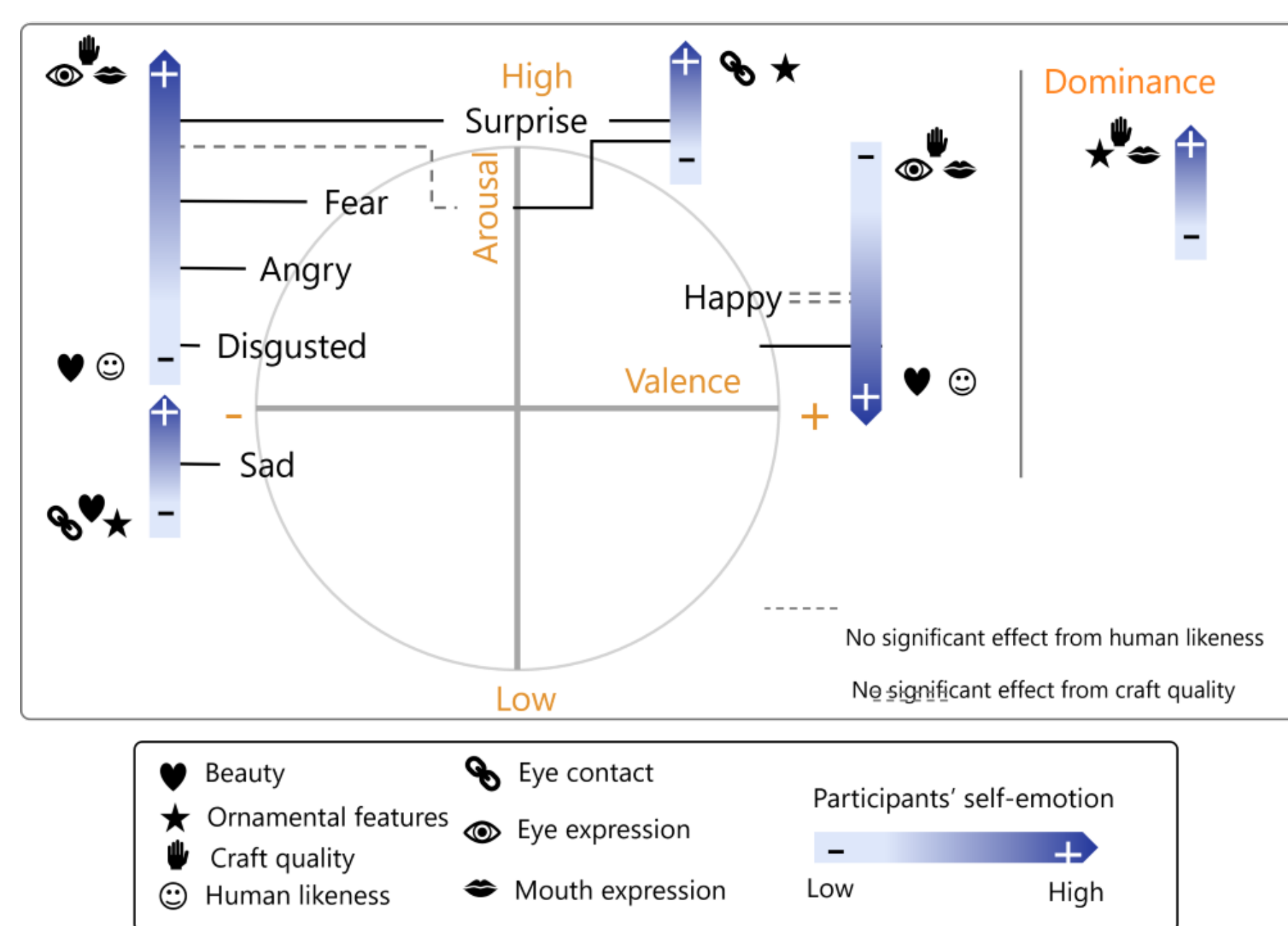


Knitted sensor technology by Izumi Konami

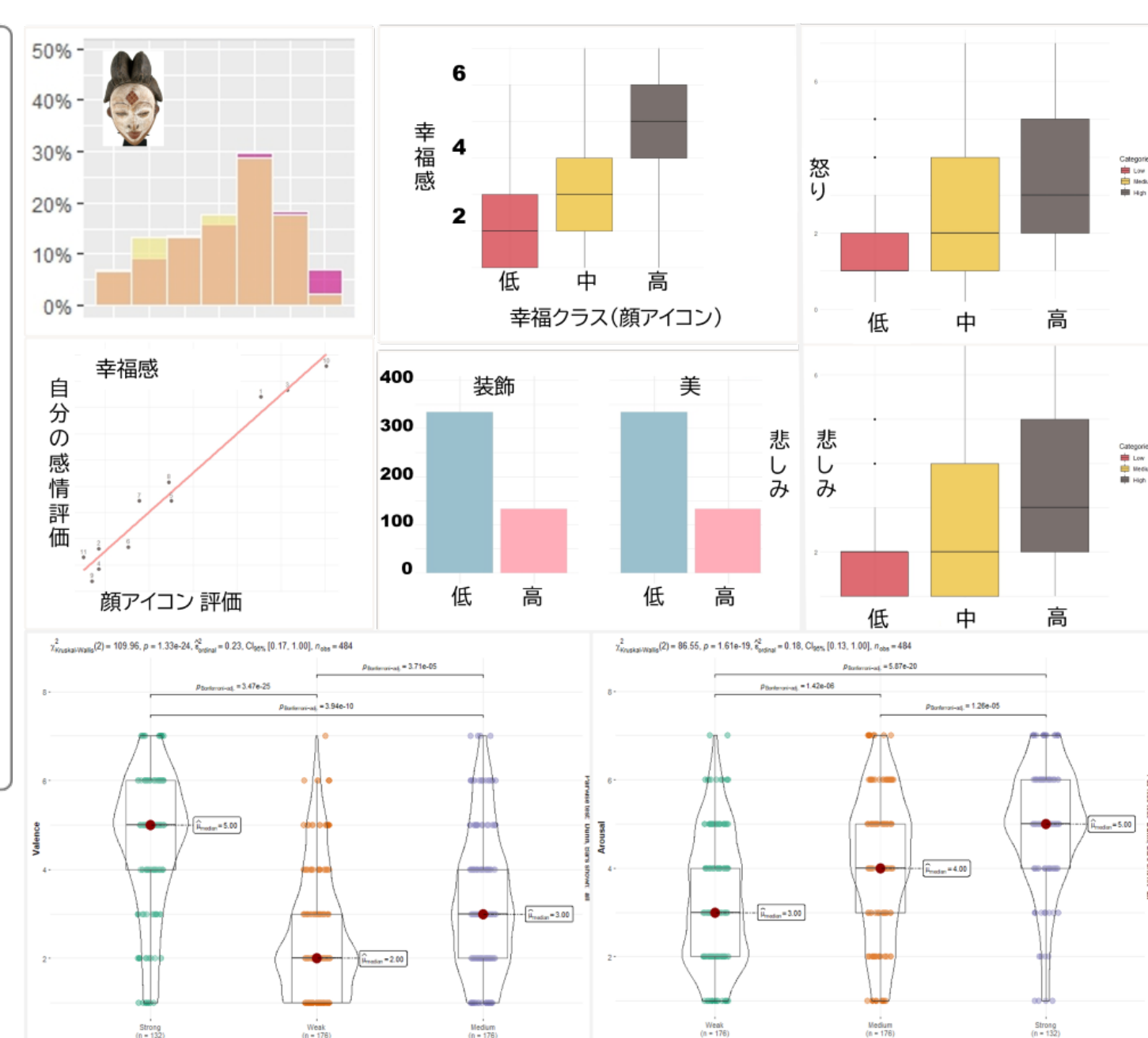


Validated interactive art-technology tool based on knitted sensor and facial icons

Impact of Facial Expressions in Art on Emotions



Impact of facial icons on individuals' emotions in previous studies



The interactive art-technology tool is leveraged on 3 main empirical findings in psychology and design:

- The tangible interaction, involving the manipulation of items to place inside the pockets and the tactile experience of stretching the pockets contribute to emotional immersion.
- Drawing a smile on "others' face" contributes to increasing one's own happiness.
- The inherent emotionality of facial expressions is associated with the perceptual impact of social expressions in human interactions. This association has an empirical basis in the phenomena of facial mimicry and emotional contagion—sharing the subjective feeling state, or the somatosensory and motor experience, of an emotion perceived in someone else. Similar mechanisms are observed toward facial expressions in art.

Applications

- Art workshops for elderly people: Enhance wellbeing and quality of life
 - Stimulate visual and tactile senses,
 - Stimulate creativity & attention and enhance brain plasticity,
 - Build self-efficacy through artistic achievement,
 - Collective fiber craft improves social interactions,
- Educational tool for children: Teaching emotions through facial expression modulation, specifically for children with impairment in emotion recognition and expression.



Workshop setting and different layout & aesthetics

[1] Achour-Benallegue A., Izumi K., Umemura H. (in press). Weaving Joy Through the Power of Touch: Interactive Art Installation Using Knitted Sensors. Leonardo (MIT Press).