## EEG based Emotion database

## **Experimental paradigm**

■ Participants: Ten subjects participated in this study (5 females). Written informed consent was obtained after a complete description of the study was provided to the participants. Our study was carried out under the guidelines for the use of human subjects established by the Institutional Review Board (IRB) at Yonsei University (NO.7001988-201807-HR-424-03)

## Design

- ✓ Stimulous: 10 stimulus(9 Korea Movie clips induced Emotion, 1 Blank screen) (Fig 1)
- ✓ Emotion: 6 emotion (Anger, Excitement, Fear, Happiness, Sadness, Neutral)

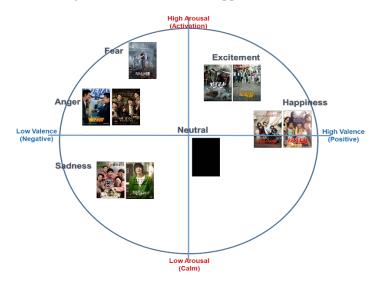
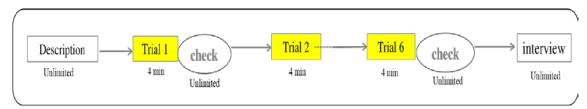


Figure 1. Emotion stimulous (from Korea Movie)

✓ Protocol (1 Set(40 min) \*2 times = 2 set by randomized)



- Data recording
  - ✓ EEG(Electroencephalogram): Emotiv EEG Headset (Neurosky Inc., USA)
    - ◆ 14 channels (AF3, F7, F3, FC5, T7, P7, O1, O2, P8, T8, FC6, F4, F8, AF4)
    - Sampling method: Sequential sampling. Single ADC
    - 0.2-45 Hz band-pass filter
    - ◆ AC coupled, Proprietary wireless, 2.4GHz band

- $\checkmark$  EKG(Electrocardiogram): Grass EEG/LTM(Grass Technologies, USA) , single channel EKG
- ✓ Face: Logiteh RGB camera

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